California State Journal of Medicine.

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Medical Society of the State of California

PHILIP MILLS JONES, M. D., Secretary and Editor

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IMPORTANT NOTICE!

All Scientific Papers submitted for Publication must be Typewritten. Notify the office promptly of any change of address, in order that mailing list and addresses in the Register may be corrected.

VOL. III DECEMBER, 1905. No. 12

NOTICE

The next meeting of the State Society will be held in San Francisco, April 17th to 19th, 1906; the Rocky Mountain and Inter-State Medical Society will meet with us at that time; clinics will be arranged for the 16th, 20th and 21st, so that the sessions will, practically, occupy the entire week. Three major symposia have been selected by the Program Committee: Anesthesia, Lungs (not including tuberculosis), and Stomach. A few volunteer papers in these symposia will be accepted by the Committee, provided that members desiring to present them will notify the Committee BEFORE JANUARY 1ST.

Members desiring to present papers in the sections, or at the general meetings, are requested to send in their names and the titles of papers as early as possible.

No contributor will be given place on the program unless the title and an abstract of his paper shall be received BEFORE MARCH 1ST, 1906.

The Chairman of the Committee is Dr. Harold Brunn, 1312 Van Ness Avenue, San Francisco.

EDITORIAL NOTES.

COLLIER'S WEEKLY.

The exposures made by *Collier's* in its issue for November 4th, are astounding. It is shown, through the reproduction of letters, telegrams, contracts, etc., that every newspaper in the country is implicated in the alcoholic nostrum fraud; that our own newspapers are not only bound to silence when the question of nostrums comes along, but that they are forced to do the lobbying for the greatest fraud in the world—the American "patent medicine." From extracts from the transactions of the Proprietary Association of America, it is shown just how beautifully these people are organized, and how they crack the whip over the backs of the newspapers and our legislators. The article is too long to reprint, and abstracts from it would give but a poor idea of the actual degradation of our vaunted "free" press. Free? There never were such slaves since the world began! Every physician in the country should give his hearty support to *Collier's Weekly*, and everyone of us should read the article referred to. There is no doubt in the world that the disgruntled nostrum manufacturers who "work" the medical profession, and who have throttled its medical publications just as effectively as the "patent" medicine men have throttled the newspapers, will join hands with the Proprietary Association in its attacks upon the American Medical Association and upon the medical profession generally. Already they have established a news bureau for the purpose of preparing articles attacking the medical profession, and having them published by their slaves—the newspapers. In our own profession we will have no help except from the *Journal A. M. A.* and the State journals, for practically all the others are owned by the nostrum men who advertise in them. Such leaders as the *Medical Record* (too dignified to pay any attention to its advertising pages) and the *New York Medical Journal* (which openly sides with the nostrum men and has offered its pages to them to express their views on their right to befool the medical profession and the public) will not help us in the fight one whit; indeed, we may consider ourselves fortunate if they do not join with the newspaper slaves and attack us. Learn the facts and then help to spread the news among your patients and your friends. Only in this way can they be placed before the people, for the newspapers have sold themselves for a price, paid in homes ruined and graves filled, that would turn the stomach of an honest man.

MEDICAL LAWS.

Why do the various State Legislatures enact laws regulating the practice of medicine? If one seriously asks himself this question and studiously searches for the answer, he will find that it is mainly to protect the public against ignorance and incompetence by providing for a minimum amount of educational and scientific equipment which must be possessed by those who will treat the sick or injured. A properly constructed and administered medical law should make it very easy for the well-equipped physician to become licensed, while rendering it practically impossible for the ignorant or incompetent to prey upon the sick. Nothing else is contemplated or desired, and nothing else should ever be allowed to creep into a medical law or the

method of its administration. This one end and object, which should never be overlooked, seems to be too often forgotten or ignored, with the result that many of those States which have excellent laws for the theoretical control of the practice of medicine, are really overrun by charlatans and quacks, while other, apparently less blessed sections, with less rigid laws, or laws more intelligently enforced, are found to be pursuing the even tenor of their way, unaccompanied by the quack and the charlatan. It is not often that the JOURNAL republishes a paper which has previously appeared in another journal, but the truth of these things, which we think cannot be gainsaid, is so remarkably well put in a paper by Dr. Van Meter, of Colorado,* that we consider it wise to publish at page 382 a full abstract with the request that every member of the Society give this question his attention. Dr. Van Meter has been directly interested in the subject of medical-practice legislation for a number of years, and his words are spoken as the result of rich experience. The essential points which he brings out have been the strongest elements in the regulation of the practice of medicine in the States of Alabama and Kentucky. New York has the reputation of having the highest requirements and the stiffest examinations of any State in the country, yet its every considerable city is alive with quacks. Kentucky has made no reputation for itself for stiff examinations or unreasonable requirements, yet there has not been a quack in that State for fifteen years. Enough said?

GRAFT.

Mr. Adams, in *Collier's Weekly*, said in his first paper that he had been warned to discriminate between proprietary medicines and nostrums; that many of the former class were good: but when he came to investigate the matter, he found mighty few "proprietary" medicines in the good class. He was quite right. The only real money-making feature of nine-tenths of the proprietary business is graft—graft, pure and simple; just as much graft and the same sort of graft as we find in the business methods of the nostrums advertised to the laity. For years pepto-mangan was held up by some physicians as a type of the "ethical proprietary," which advertised itself only to physicians and in a proper manner. Thanks to the *Journal A. M. A.*, we have been shown the sort of commercial methods pursued by these honorable gentlemen in persuading physicians to make use of their "ethical proprietary," which is really less valuable as a remedy than pharmacopeial preparations of known composition. Consider tongaline and glycozone and Pond's extract, all following exactly the same course as peruna and making capital out of the anxiety which accompanies an epidemic. Contemplate the long list of "medical" journals which advertise that practically worthless stuff, Pond's extract; or the equally large number of alleged medical journals which help along the graft by advertising syrup of figs as a senna mixture, while the daily papers advertise it to the laity in a manner to lead the public to believe that it owes its virtues, in some mysterious way, to figs. It is a merry game of graft, graft, graft; the manufacturers play the fiddles and bought-and-paid-for "medical journals" dance, and the credulous or ignorant profession is properly hypnotized by the noise and the gyrations. The more we stir the nasty mess of proprietary corruption the worse is the stench.

* *Colorado Medicine*, October, 1905.

Where is the freedom of the press? Practically every newspaper in this country has been bought by the alcoholic nostrum manufacturers and has signed advertising contracts with them which contain the following clauses:

1st. It is agreed in case any law or laws are enacted, either State or National, harmful to the interests of the (Nostrum Manufacturing Co.), that this contract may be cancelled by them from date of such enactment, and the insertions paid for pro rata with the contract price.

2d. It is agreed that the (Nostrum Manufacturing Co.) may cancel this contract pro rata in case advertisements are published in this paper in which their products are offered, with a view to substitution or other harmful motive; also, in case any matter otherwise detrimental to the (Nostrum Manufacturing Co.'s) interests is permitted to appear in the reading columns or elsewhere in this paper.

(See *Collier's Weekly*, Nov. 4, 1905.)

ALCOHOLIC NOSTRUMS.

It is almost proverbial that Governments advance more slowly than do individuals, and our Government is no exception to the rule. Many hundreds of thousands of people in the United States have known for years that a large number of the so-called "patent medicines" advertised and sold to the general public are nothing but bad whiskey plus some inert vegetable and coloring matter, and are manufactured and sold simply and solely for the purpose of inducing or supplying a craving for alcohol; but our Government has only recently become aware of this fact, officially. Some weeks ago Mr. Yerkes, United States Commissioner of Internal Revenue, issued an order to the effect that all "patent medicines" would be analyzed and the manufacturers of those found to be composed largely of distilled spirits or mixtures thereof, and containing only a small amount of other ingredients (in short, all which are obviously intended as alcoholic beverages) must pay the wholesale liquor dealers' and rectifiers' tax, and that retailers who handle such goods must pay the regular Government liquor dealers' annual tax of $25.00. The list of so-called "medicines" which will come within the provisions of this order has not been announced,

but in all human probability it will contain most of the articles in the list of alcoholic "medicines" published sometime ago by the *Ladies' Home Journal*, and reprinted in your JOURNAL at that time. In order to refresh your memory we again reprint that table at page 396. As soon as the further announcement is made, we will advise you. Then watch your druggist and see whether he handles these alcoholics and whether he takes out a liquor dealer's license; if he does, it would not be a bad plan to find some other pharmacist. The medical profession is closely affiliated with the profession of pharmacy, but we have yet to learn that it has any close connection with the liquor business.

BILLINGS' PAPER.

The paper by Dr. Frank Billings of Chicago, read at the last meeting of the A. M. A., is well worth your careful reading and inward digestion. By special arrangement with the *Journal A. M. A.*, this paper will appear simultaneously in that journal and in a large number of the State society journals. Only two State society journals flatly refused to publish this paper; one of them alleged lack of space and in the other case the editor said that he was not in full sympathy with the sentiments expressed by Dr. Billings—doubtless because the advertising pages of his journal assist in promoting the use of a goodly number of the rank nostrums mentioned by Dr. Billings. It is worth while to ponder upon a little plain truth once in a while, and certainly there is enough of it here presented to warrant considerable "pondering." These nostrums can only live while they make money for their manufacturers, and while their manufacturers are spending money in liberal purchase of the so-called "medical" journals.

They do not live because of their own merit, for hardly one of them has the slightest particle of actual merit to commend it to professional attention. If they stop advertising they die. Nearly all the medical journals in the country are published to make money; any service they may render to the medical profession is a secondary consideration; primarily, their owners have but one object—to make money. They do not care how they make it, so long as they make it, and the more they can make the better pleased they are. The journals which are the biggest, and which ought to be the best are amongst the worst sinners; if there is a nostrum so bad that the big weeklies, the *Boston Medical and Surgical Journal*, the *Medical Record*, the *New York Medical Journal* and the *Medical News* will not permit it advertising space—if paid for—we do not know of it. These nostrums and most "proprietary" mixtures live on graft, lies, deceit, secrecy and fraud—and the bought-and-paid-for "medical" journals help them in the graft. Remember, they do not thrive on their own merits. Will you not look through the advertising pages of the journals which you subscribe for, and if you see the advertisements of these nostrums that outrage professional decency, stop your subscription? As Dr. Billings says, "sympathy will not win battles," and this is a battle for decency and honor. Will you help? You can do much if you will; will you do it?

Explain to your friends and patients that practically every newspaper in the United States is a silent partner in the nostrum fraud business. That it is bound to silence and to aid in defrauding the people into using alcoholic nostrums by the following clauses in its advertising contracts with the nostrum trust:

1st. It is agreed in case any law or laws are enacted, either State or National, harmful to the interests of the (Nostrum Manufacturing Co.), that this contract may be cancelled by them from date of such enactment, and the insertions paid for pro rata with the contract price.

2d. It is agreed that the (Nostrum Manufacturing Co.) may cancel this contract pro rata in case advertisements are published in this paper, in which their products are offered, with a view to substitution or other harmful motive; also, in case any matter otherwise detrimental to the (Nostrum Manufacturing Co.'s) interests is permitted to appear in the reading columns or elsewhere in this paper.

(See *Collier's Weekly*, Nov. 4, 1905.)

UNBLUSHING IMPUDENCE.

One of the nostrum manufacturers who have for years foisted their wares upon the public through the daily papers, has recently taken to advertising in the so-called "medical" press. We quote the following from a "medical" journal of the predatory class: "Yes, it's true! This company certainly advertises in the newspapers! Here is a sample, word for word, now appearing all over this country: 'Do not undervalue the services of a skillful physician. Even the best medicine cannot take the place of the family doctor. Therefore we say: Consult your physician freely about your case and ask him what he thinks about your taking Ayer's Cherry Pectoral for your cough. If he says take it then take it. If he says do not take it, then follow his advice.' Anything objectionable about that? We have always upheld the honor of the medical profession. J. C. Ayer Co., Lowell, Mass." "Upheld the honor of the medical profession!" Ye gods, deliver us from such friends and upholders! Just see how ingeniously you are being worked by these advertisements and how these "medical" journals—Heaven save the mark!—are helping in the "working" process. A man with the cough of a beginning tuberculosis sees that advertisement in his daily paper. The ingenuous reference to his physician convinces him that the remedy must be all right, so what's the use of seeing a doctor who may tell him to use this "medicine," or may prescribe it, even. If it is some-

thing doctors use it must be good for a cough. So he gets a bottle and then another, and then some more; and when he finally does go to a physician he finds the disease has passed beyond the curable stage. How many people have lost their lives in just that way, do you suppose?

Now, this J. C. Ayer Co., the "upholder" of the honor of the medical profession, is a member of that highly honorable and estimable gang of manufacturers of alcoholic nostrums (so beautifully shown up in *Collier's Weekly* for Nov. 4th), which, through its remarkably clever organization, has actually bought the silence of practically every newspaper in the country. (If you have not yet read *Collier's*, by all means get it and read it; you cannot afford not to know the actual facts there disclosed.) Just stop and think what that means. Every newspaper in the country throttled; not a word injurious to the interests of the drunk-making nostrums can be published; the self-respect of every newspaper man in the country sold to the nostrum makers for a little dirty advertising! And now, fearing the influence of the "medical" journals, are these nostrum makers attempting to throttle the medical press in the same way that they have bought the daily press? It would be interesting to see just the sort of advertising contract that the J. C. Ayer Co. has made with the *Charlotte Medical Journal*, for example.

THOSE FEES.

This is just about the very best time imaginable to keep agitating the question of cheap insurance examination fees. Do not let the matter drop, but hold out more firmly than ever for a minimum fee of $5.00, and you will surely win in the end. Already a few companies have secretly notified their agents to pay the extra $2.00 in those sections where it is insisted upon, and under no circumstances to let the extra $2.00 start up a general discussion of the insurance business. Go to your lay friends and explain the danger they run in insuring in a company so regardless of the welfare of the policy holder as to accept risks based upon cheap examinations. Refer to that letter which we published last month, from the medical director of a company, in which he states: "If a physician does not wish to do the work at our rates we are compelled to find someone who will." Does this mean that pretty soon they may have the janitors, or possibly their own agents, making their examinations? If so, then watch the mortality tables! Anything to save a few dollars, so that the officers may have larger surpluses to get away with or to devote to bribery and corruption. The Insurance Commission in New York has shown that the poor policy holder is the very last person thought of by the officers who juggle the money. He thinks he is buying life insurance, but he is really participating in a beautiful philanthropic enterprise—mainly for the benefit of the president, and his family; the vice-presidents, and their families; the other minor officers and families, and then the officials of other companies. Pay $2.00 more to the physician who makes the examination? Never! If a *physician* won't make the examination for $3.00, get someone else to do it; hang the policy holder! Save the $2.00! When you hear of an acquaintance who is going to take out life insurance, go to him and explain the danger of taking out a policy in a company that is so reckless as to accept cheap examinations, which are really an actual danger. Urge your friends to place their insurance with companies which pay a minimum examination fee of $5.00.

Where is the freedom of the press? Practically every newspaper in this country has been bought by the alcoholic nostrum manufacturers and has signed advertising contracts with them which contain the following clauses:

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(See *Collier's Weekly*, Nov. 4, 1905.)

DR. McCORMACK'S ADDRESSES ON ORGANIZATION.

(Continued from page 341, Vol. III, No. 11.)

There is hardly an evil in the medical profession today for which the physicians themselves are not responsible. Back of almost every mal-practice suit that was ever tried may be found some envious or disgruntled doctor. The degradation of the expert medical witness is almost complete, and is largely, if not entirely, due to envy, hatred and malice. Isolation and comparative ignorance are the causes which have brought about these conditions, and the remedy is plain. Among bankers, similar conditions formerly existed, and their dissensions were as numerous as those among physicians until the bankers' association was formed and they were brought together. The clergy suffered from the same blight until the ministerial associations which now exist in every community were organized.

Organization and education promise to remedy the sickness from which we are now suffering. If the physicians of a community can meet each other frequently and become acquainted, can really get to know each other

and to help each other, can substitute co-operation for antagonism, they will all be helped and the community will benefit. The struggle for existence is much harder when men are at outs than when they are working harmoniously, and the greater the struggle for existence, the less opportunity is there for improvement and study. Thus we find that far too many medical men have remained exactly where they were, mentally speaking, when they graduated; they have not kept up with the times; each has gone his own little isolated way and most have stagnated. If they would meet together and study together, each could and would both help, and be helped by, the others, and they would soon find that their many and bitter differences were really things of air.

A good and complete organization in each county—an organization in fact and not alone in theory—is absolutely essential. Every licensed physician, without regard to school of graduation or other consideration, so long as he is reputable and does not advertise himself to be the follower of any particular cult, should be a member of his county medical society—and should be a working member, and not merely a theoretical member. Meetings should be held frequently and not at rare intervals; once a week, if possible, and it is possible in more cases than one would think at first glance. Light refreshments will be found a very welcome adjunct to these meetings and will add greatly to their pleasure and to their success.

Scientific work should be energetically pursued. The majority of county society meetings are a good deal of a farce; some member will read a paper carefully (?) prepared from some old text book, and both paper and discussion will be enough to dishearten any one. Regular courses of systematic study should be organized and followed, and the work of the county society should be largely of the nature of post-graduate work. In Indiana there is a county society that has done just exactly this work for three years, and during that time, except in the summers, has met every other night. When this course was suggested at the meeting of the county society held at Rochester, Minnesota, the first man to appreciate the force of the argument and the necessity for the work was no less a man than Dr. Will Mayo, president-elect of the American Medical Association and one of the foremost surgeons in the world. In his opinion no member of his society would profit more from this plan of post-graduate work than would he himself. Every county society should take this matter up at once and arrange for systematic work; if half the energy that is put in in hammering each other were devoted to educational work, most of our quarrels would soon be forgotten and we should all be better doctors.

Too long have our medical societies hedged themselves about with a mantle of secrecy; it is high time that the public were taken into our confidence and a closer understanding reached. Our own aloofness and our own bickerings have brought about a condition of distrust in the public mind and this we should make every effort to correct. Arrange for joint meetings with the bar association of your county and discuss with the attorneys and judges the questions that affect the medical profession and the public. These gentlemen, very often, do not understand what we are working for. It has not been clearly and plainly put to them that the quack is a danger to the poor and sick laymen and not to the physician, and that it is merely protecting the public from unscrupulous or ignorant grafters, to have and to enforce a good medical law. Come to an understanding with the newspapers and arrange to supply them, anonymously, through a committee or through some appointed individual, with correct information and news about things of general medical interest. Only in this way can these facts be correctly placed before the people, and if we do not do it, it will not be done.

In the same way discuss matters with the ministerial association. There is absolutely no reason why ministers should not be charged for professional services just the same as any other class; they are quite as well able to pay their bills and it is time that the medical profession stopped giving its services except in cases of destitution. Then, too, they should be educated in the harm they are doing through aiding quackery. Fifty years ago, Oliver Wendell Holmes stated that quackery limped along on two crutches—the tattling of old women and the certificates of clergymen. Many truly honest and upright clergymen are taking and recklessly recommending the various alcoholic "patents," simply because they do not know any better. Almost every notorious quack in the country is a broken down preacher.

Consider these things carefully and then consider what can be done. There is nothing Utopian in the suggestions made; the facts are true and the suggestions are perfectly practicable.

(Next month we will discuss conditions as they are and as they may be if we will but do a little work.)

(To be continued.)

DR. EDITH JANE CLAYPOLE VS. THE BOARD OF MEDICAL EXAMINERS.

This case was settled out of court by the issuance of a certificate to Dr. Claypole by the legal adviser of the board, on October 18, 1905. As the case has occupied considerable attention from the Society for a year or more past,

your Publication Committee has given much time to a thorough investigation of the matter and considers it its duty to place before you with absolute impartiality, the facts. These have been obtained from the records of the board, from all documents in the case, and from personal interviews with the counsel and with members of the board.

Dr. Claypole filed the old form of statutory affidavit on or about the 10th of June, 1904, stating that she had obtained a degree of doctor of medicine in the regular course and without fraud. She then presented herself at what is stated to have been a special examination held in Los Angeles July 12th to 14th; after the examination the papers were sent to the various examiners for marking. The board met in formal session July 30th and it then appeared that Dr. Claypole had received a general average of 84%, but had been conditioned in pathology, receiving only 59%. At that time candidates receiving less than 60% were conditioned and could work off the condition at a subsequent examination in the conditioned subject. At this session of the board a document from Cornell University was presented which stated that Dr. Claypole had studied medicine atthat institution during the freshman year and for four and one-half months in the sophmore year; the required time is nine months of each year at Cornell University and the minimum legal requirement is six months.

After leaving Cornell Miss Claypole came to California and applied for admission to the junior class of the University of Southern California, Medical School. The then dean, Dr. H. G. Brainerd, refused to admit her to this advanced standing as she had not completed her sophomore year at Cornell. Subsequently she again applied for admission and the new dean, Dr. James H. McBride, admitted her to the junior class. She seems to have complied with all the requirements of that school and to have been graduated with the M. D. degree in 1904.

An examination to remove the condition in pathology was held August 15, 1904, under the supervision of Dr. Charles D. Lockwood, and the papers of the five or six conditioned candidates were then sent to the member of the board who had this subject, to be marked. The paper of Dr. Claypole, filed with the records of the board, shows no indication of having been marked and we are advised that the paper was not marked by the examiner, for the reason that the question of Dr. Claypole's ineligibility had been raised by the statement from Cornell to the effect that she had not completed her second year. The case seems to have remained at this stage for some months. At the April meeting of the State Society it gave rise to some heated discussion; and considerable correspondence, pro and con, seems to have passed. Dr. Claypole wrote to the board asking why her license was withheld and was requested to appear before the board at the meeting of August 1, 1905.

In the person of her attorney, she appeared before the board at this meeting and claimed that all provisions of the law had been complied with; that she had been granted the degree of Ph. B. by Buchtell College in 1892, and the degree of M. S. by Cornell University in 1893. Her attorney argued that the rules of the Association of American Medical Colleges, which is the standard as provided by the California law, permitted at that time an allowance to holders of these academic degrees of one year on the required four year course, and did not specify to which year this credit was to apply; that consequently she had more than complied with the letter of the legal requirements. The old constitution of the Association of American Medical Colleges did not make the time of this credit clear, but the new constitution shows that such credit can only be given in the first year. In view of this fact, and that the Judicial Council of the Association of American Medical Colleges informed the board that such credit was confined to the first year, and that no college, so far as known, had ever allowed such credit in any year save the first, the board, by *unanimous* vote, refused to issue the certificate until Dr. Claypole had completed the required time by returning to college for the minimum legal period which seemed to be required—six weeks. It is stated that the board had not been officially notified that Dr. Claypole held the degree of Ph. B. and M. S. previous to the 1st of August, 1905.

It seems to have been assumed by the board that if Dr. Claypole proceeded legally in the matter, the case would come up in the Superior Court, where testimony and witnesses might be introduced and the contention of the board fully presented and backed by evidence. All previous cases against the board had been tried in the Superior Court. However, Dr. Claypole's attorney succeeded in securing a writ of mandamus from the Supreme Court, in bank, ordering the board to show cause why it should not issue a license to Dr. Claypole. In the Supreme Court no evidence and no witnesses may be introduced. As the board could not introduce witnesses or testimony before the Supreme Court to sustain its contention, the attorney for the board considered it unwise to take the chance of having an adverse decision rendered, and consequently the case was not argued before the Supreme Court, but the certificate was issued. Your Committee believes that the board followed rigidly the letter of the law and interpreted the ambiguity by academic usage and the opinion of the Judicial Council of the Association of American Medical Colleges.

ARE WE OWNED BY THE NOSTRUMS?

Some of our members who attended the Portland meeting of the American Medical Association, will remember that Dr. Frank Billings, of Chicago, read a paper before the section on medicine on the subject of the abuses of the proprietary medicine business, which attracted some attention. We understand that the Association was threatened with legal action in case the paper should be published. Agreeably to the wishes of the *Journal A. M. A.*, the President of the Association of State Medical Journals corresponded with the editors of such journals with a view to arranging for simultaneous publication of this paper in the *Journal A. M. A.* and a number of the State journals. Some person into whose hands this correspondence has fallen, seems to have been good enough to place it before one of the nostrum manufacturers mentioned by Dr. Billings, for we have recently received letters which we take pleasure in publishing below. (Vide infra.)

Dr. Billings' remarks relating to phenalgin were based upon a report of the Committee on Chemisty of the Council on Pharmacy and Chemistry of the A. M. A., which report gave analyses of this article showing it to be composed of acetanilid 57, sodium bicarb. 29, ammonium carb. 10. This report was signed by J. H. Long, Prof. of Chemistry in the Northwestern University Medical School, W. A. Puckner, Prof. of Chemistry in the School of Pharmacy of the University of Illinois, S. P. Sadtler, Prof. of Chemistry in the Philadelphia College of Pharmacy, Julius Steiglitz, Prof. of Chemistry in the University of Chicago, H. W. Wiley, Chief of the Bureau of Chemistry of the Department of Agriculture, and Max D. Slimmer, Ph. D.

It may be safely assumed that the findings of the committee were accurate and that nothing but the truth has been said. Are we then to be held up by this nostrum manufacturer and prevented from telling the truth about the things which we are being urged, through the advertising pages of a venal medical press, to use as medicines?

New York, U. S. A., November 10, 1905.

Editor CALIFORNIA STATE JOURNAL OF MEDICINE, San Francisco, Cal. Dear Doctor: We understand that the article read by Dr. Frank Billings of Chicago, Ill., at the Portland meeting of the American Medical Association, last July, entitled "The Secret Nostrum Evil," is being sent out to a number of medical journals for publication, although it has not as yet appeared in the *Journal of the American Medical Association* of Chicago, Illinois. The enclosed copy of a letter from our attorney, Bartow S. Weeks, of New York, to Dr. George H. Simmons, editor of the *Journal of the American Medical Association*, will be interesting in this connection. Yours truly,

ETNA CHEMICAL COMPANY.
Per ALLEN H. STILL,
Secretary and General Manager.

BARTOW S. WEEKS,
Attorney and Counselor at Law,
170 Broadway, New York.

August 8, 1905.

The Journal of the American Medical Association, Dr. George H. Simmons, Editor, 103 Dearborn Avenue, Chicago, Ill. Dear Sir: On behalf of the Etna Chemical Company, proprietors and manufacturers of "Phenalgin," I write to call your attention to an article by Dr. Frank Billings, entitled "The Secret Nostrum Evil," read before the American Medical Association at its last meeting, at Portland, Oregon, referring to the said preparation "Phenalgin" in a manner indicating that it was a quack remedy, and improper to be prescribed by physicians. The publication in your *Journal* of any such reference to "Phenalgin" I have advised my client would be libelous and not privileged.

I am also advised that you intend publishing a book containing formulæ in which mention is to be made of "Phenalgin." The publication of any alleged formulæ of "Phenalgin" in said book of formulæ, would be an infringement of the right of my client.

I write you therefore, to request that, in the publication of the proceedings of the Association, and in your book of formulæ, you omit entirely the name "Phenalgin," thereby avoiding the necessity for legal proceedings on this account.

Trusting to hear from you that you will refrain from the publication of any reference to "Phenalgin," as indicated, I beg to remain, Yours truly,

(Signed) BARTOW S. WEEKS.

THE SECRET NOSTRUM EVIL.*

By FRANK BILLINGS, M. D., Chicago.

I SHALL make no apology for bringing this subject before this section. Its importance to the profession of medicine and to the public justifies an exposition of the evil now. In no other country has this menace to the welfare of the people and to the best interests of scientific medicine developed as it has with us.

Probably the reason is that other countries, with one or two exceptions, protect the people against frauds in foods, medicines, etc.

Some day it is to be hoped that the Congress of the United States will enact a national pure food law which shall include the regulation of the copyrighting and exploitation of proprietary and other medicines.

Just here it will be well to say that the term "proprietary medicine" does not necessarily stamp a preparation or remedy as a nostrum. Webster says that a nostrum is "a medicine, the ingredients of which are kept secret for the purpose of restricting the profits of sale to the inventor or proprietor; a quack medicine." Some proprietary medicines are patented, or better, the process of manufacturing an article is patented. This patent protects the discoverer, or owner, in the manufacture of the medicine or drug for a period of 17 years. These preparations are ethical, in that they are not secret, for any one for a small fee may obtain from the patent office of the government a copy of the description of the process of manufacture and the actual chemical composition of any such patented drug or remedy. The chief harm which has come to us in America from the protection by patent of the process of making a chemical or drug has been the resulting high price of the product. Many of the synthetic chemical drugs, like antypyrin, phenacetin, etc., cost ten times their worth as compared with the price of the same drugs in Germany and in other countries. As stated, however, such really patented preparations are not secret; the composition is known. Some of them are of value therapeutically. Many of them are valueless. Some of them are harmful. Most of them we could easily get on without and fare better with the older, more simple remedies. Too many "made in Germany" specifics are shoved under our noses.

Now, as to the other proprietary medicines. All the so-called "patent medicines" put on the market for the public, and many of the preparations exploited to physicians and distributed by them to the public, are not patented, but are protected by a copyright or trade mark. Technically there is no difference between the secret proprietary medicines manufactured for physicians' use and the "patent medicines" exploited to the public. Both are protected by a copyright or trade mark name. Both are protected for an indefinite time. They are mixtures, as a rule, of several ingredients.

The relation of the physician to these preparations, however, is very different. Those "patent medi-

*Read in the Section on Practice of Medicine of the American Medical Association, at the Fifty-sixth Annual Session, July, 1905.

cines" which are advertised to the public are not considered ethical, and physicians abhor them and rightly condemn their use because they are often dangerous and always irrational as remedies. On the other hand, the manufacturers of those copyrighted proprietary medicines which are exploited to physicians by extravagant claims of specific therapeutic action, use the doctor as the middle man to distribute the cure-alls to the public.

Medicines so prepared that the busy physician could easily dispense them found a certain class of doctors eager to use them. The indications for use appeared on the label or in the accompanying literature. Tonics, blood and tissue builders, emenagogues, pain relievers, febrifuges, laxatives, calculi dissolvers, soporifics, bile promoters, heart tonics, cures for Bright's disease, etc., have appeared in countless number, and some remedies offered are confidently presented as cures for not one, but a half dozen diseases or symptoms complex. Indeed, the claims of many of the promoters of this class of remedies do not differ in extravagance from the cure-all patent medicines offered directly to the public.

It has been easy to obtain testimonials of the alleged value of many of these remedies. Many even of the "faculty" have extolled them. Why, therefore, should not the less experienced physician use these "elegant," palatable, all-ready-to-use, with label-specifying-dose, disease-indicating remedies? Prominent physicians and the "faculty" had testimonials in the circulars sent with the samples indicating the virtues; why, therefore, use the simple proved remedies of the pharmacopeia, and especially as the latter would often necessitate the trouble of writing a real prescription?

To the rational physician most of the mixtures, even with the formulæ, are objectionable. Disease is never quite the same in different individuals, nor does the picture remain the same from day to day. The treatment must be modified to meet the varying problem of the morbid process. Rational therapy calls for simple prescriptions; but if there be an objection to mixtures with fixed and known formulæ, what must one say of mixtures of secret or semi-secret composition?

As Dr. Horatio C. Wood, Jr.,[1] says:

> A much more elusive and therefore dangerous evil lurks in the class of mixtures which attempt to cloak their secrecy with a deceptive show of frankness. I think you will grant that the physician is rarely justified in the use of remedies concerning which he has no knowledge, and I maintain that the publication by a drug firm, of whose integrity the physician is absolutely ignorant, of a professed list of ingredients of some mixture is not sufficient knowledge to pardon or to warrant the uses of that remedy. In the first place, if the published formula be correct, it is not enough to know simply the composition of a mixture, the exact quantities must also be known; there is a vast difference between the effects of 1 grain and of 100 grains of opium. Moreover, there is no means of knowing that the formula is a true one, for many of these corporations do not hesitate to pervert the truth.

Many of the promoters of these preparations claim, as chemists or as pharmacists, to be the discoverers of the wonderful remedies and the alleged unusual knowledge of chemistry or of skill in pharmacy has enabled the discoverer to develop in a mixture heretofore unknown, therapeutic qualities. Truth to tell, however, it is known that the proprietors are not always the manufacturers of the preparations they exploit and distribute. Many of the proprietary preparations are made by the large manufacturing pharmacists for the owners. Pharmaceutic skill is doubtless used in these instances, but it is the kind of skill which is for sale and is not personal.

I am informed that it is not unusual for one manufacturer of proprietary mixtures to have several so-called "companies," through which he can more easily exploit and distribute his products.

There is said to be a direct relation between the Dad Chemical Co., the Od Chemical Co., the Sultan Drug Co., the Rio Chemical Co., and the Peacock Chemical Co., or at least that they are linked together through one individual, and that Battle & Co. and the Lambert Pharmacal Co. are related to the above list. It is said, too, that the Vass Chemical Co., the Lotos Chemical Co. and the Valley Chemical Co. are one combination. Doubtless other combinations exist.

Curiosity recently prompted me to look through a number of medical journals, and I cannot resist the temptation to quote some of the preparations advertised in them: Aletris Cordial, Celerina, Neurilla, Respiton, San Metto, Cactina Pellets, Seng, Chionia, Thialion, Zarcol, Ecthol, Hagee's Cordial of Cod Liver Oil Compound, Mandragorine Tablets, Rheumagon, Ponca Compound, Ammophenin, Chloro-Bromon, Anasarcin, Bronchiline, Zematol, Zymoticine, Sulphogen, Labordine, Satyria, Manola, Cacodol, Eusoma, Leprosen, Sulpho-Naphtol, Pasavena, Neurosine, Germiletum, Bonn's Passiflora Tablets, Dioviburnia, Tongaline, Lithiated Hydrangea, Melachol, Gonoseptone, Calicolo, Solsul, Saliodin, and so on *ad infinitum*. These are only a few samples of what the physicians of the United States are asked to prescribe. But there are hundreds of secret preparations that are not advertised in medical journals, whose literature and samples come to us through the mails, etc. In the majority of cases, we do not know their contents, and in many instances an analysis shows that they are simply mixtures. Often a prescription written by a physician for a particular case is purloined, put up under a trade name and exploited as a cure-all.

As an illustration see the official announcement of the Council on Pharmacy and Chemistry regarding certain nostrums that have been exploited as synthetic chemical preparations guaranteed to cure everything I have no doubt that the majority of the physicians who have been prescribing phenalgin, antikamnia, sal-codeia (Bell), and ammonol were shocked when they found out that, according to the analyses, they had been giving a simple mixture of acetanilid, with bicarbonate or salicylate of sodium or carbonate of ammonium, with a little caffein in some instances. What physician will be foolish enough to use these preparations, when he can get the same of his druggist for at most one-tenth the cost, but especially what physician with a particle of medical knowledge would think of giving acetanilid if he knew it, in the majority of the conditions in which, according to the advertisers, these nostrums are indicated?

What physician would prescribe Gray's glycerin tonic, if he knew that its chief ingredients are gentian, dandelion, glycerin and sherry wine?[2] Could he not write a prescription as good and feel that he was his own judge of what constitutes a tonic?

Let me quote from the *Journal A. M. A.*[3] This, I am told, refers to an article advertised as a codliver oil preparation—one of the tasteless kind, that has been investigated by a sub-committee of the Council:

> We have recently had occasion to open a package of a well-known "Tasteless Cod Liver Oil" preparation. The circular which was wrapped about the bottle was replete with interesting information, especially for the patient, who obtains the remedy in the original package, as prescribed by his physician. He finds in it a list of the diseases in which the preparation does wonders—they range from the dread consumption to cystitis and hemorrhage of the kidney. Most interesting to us, however, is the statement that this compound "contains all the necessary elements of nutrition." It is too bad to disturb this beautiful vision by the report of the chemist. This shows that the product is quite free from oil or proteids; the only nutrient ingredients are alcohol, sugar, and perhaps glycerin. But the claims of the manufacturers are probably correct, for it contains carbon, hydrogen, oxygen, and probably a trace of nitrogen—so does gunpowder.
>
> Perhaps it will now be the turn of strychnin to be advertised as the ideal food. It seems superfluous to point out the moral of this tale.

It is not necessary to enter into a discussion as to whether we should ever prescribe secret proprietary medicines, for in the minds of intelligent men, even with only a smattering of medical knowledge, there

[1] "Proprietary Therapeutics," The *Journal A. M. A.*, June 10, 1905, p. 1846.

[2] "Each half ounce is stated to contain dilute phosphoric acid, 12 minims; gentian root, 10 grains; extract of taraxacum, 15 grains; glycerin, 80 minims; sherry wine, 80 minims; carminatives, q. s."—"Thesaurus of Proprietary Remedies," p. 148.

[3] June 17, 1905, p. 1943.

can be but one answer. A physician who has a true appreciation of his responsibilities, who has even ordinary knowledge of the action of drugs, and the danger from their unintelligent use, would not think of prescribing for the sick, who have placed themselves under his care, a preparation about which he knows nothing except what the manufacturer, about whom he knows less, had told him. While there is no excuse for prescribing these medicines, too many unthinking physicians are influenced to do so by the claptrap designated "literature," which the exploiters publish about their preparations.

There is not a secret proprietary preparation that has any more value, from a pharmaceutical or therapeutic standpoint than has the ordinary precription of the average general practitioner. Stop advertising them and they would be forgotten, just as "patent medicines" pass away if they are not advertised. A hark back 10 or 15 years will call to mind many concoctions which physicians were asked to prescribe, and which, according to the advertisements, performed wonders, but now are heard of no more. Their advertising literature stopped coming and the nostrum-prescribing doctor ceased to use them.

What is the cause of the nostrum evil? There are several.

1. Pharmacology and therapeutics are neglected relatively by many of our medical schools. Anatomy, physiology, pathology, diagnosis, etc., are emphasized and too often the usefulness and limitations of drugs are neglected. Too frequently drug nihilism is taught. If the student were fully taught the physiologic action of drugs, the art of prescribing, preferably single remedies or in the simple combination, using if he desires pharmacopeial preparations prepared by reliable manufacturing pharmacists, and at the same time if he were taught when not to rely on drugs, but frankly to prescribe for his patient a course of hygienic measures which alone would accomplish all that would be required, he would not be the willing dupe of the nostrum vendor, as he now is.

2. The reputable manufacturing pharmacists deserve great credit for the improvement they have made in pharmaceutical products. They have afforded us official preparations in the form of pills, tablets, syrups, tinctures, extracts, etc., which are elegant in appearance, often palatable and usually potent.

For this advance in pharmacy, a distinct credit to our country, we owe them our thanks.

Unfortunately, many of them have not stopped at this point, but have manufactured their own special mixtures, which are just as objectionable as the products of the special manufacturers. They, too, have been active with their agents in visiting physicians and in distributing "literature." This encourages drug-giving in specific mixtures for special symptoms, and is wrong. With one hand they do good work, with the other much evil is done.

3. The nostrum makers at first copied the methods of the reliable manufacturing chemists, in exploiting their products, but they have gone a step farther and have reached a point where one may say that they have subsidized the medical press. I know I am on dangerous ground when I make this statement, but right here is the chief cause—and the remedy. How many of our so-called medical journals are subsidized by medicine manufacturers I do not know, but all physicians know as well as I that there are many, and I do not refer to the so-called house organs. I unhesitatingly affirm that one-half of the medical journals of the country would be out of existence if it were not for the nostrum advertisements. Under the circumstances, therefore, can we expect these journals to say anything? Need we be surprised that scarcely a journal published the official report regarding the acetanilid mixtures, when the preparations hit were the best paying advertisements in the country?

What is the remedy? Publicity. The enlightenment of the profession. The truth regarding not only what the preparations contain, but who makes them. Certainly no honest manufacturer will object to this last proposition, and no honest physician will put up with less than the former.

The Council on Pharmacy and Chemistry has been created to investigate the non-official preparations, to find out the truth about them, and to publish its findings. It is not necessary to repeat here the results of the work already done by this body. All physicians have read, or may read all about it. In my opinion there has been no movement undertaken by the American Medical Association that will be so far reaching as this one to rid us of the blight of the nostrum evil. For the first time, we see the possibility of the elimination of a part, at least, of this curse to American medicine. It is the first practical solution offered of a most difficult problem.

But—and I want to emphasize what I am about to say—the movement will have the most determined opposition that money can bring. Millions are being made annually by the nostrum manufacturers, and they will not sit idly by and see this wealth-producing business done away with if they can prevent it. It won't be an open fight, for their business will not stand publicity. They will have with them those so-called medical journals which are published solely in their interests.

This movement will have the sympathy of every thinking physician of the country, but sympathy does not win battles. In this fight those who are representing us should have all the support we can give. In society meetings especially we should aid in the propaganda by helping to enlighten and to interest those of our profession who have given the matter no thought. We should support those journals that represent us, and not tolerate in our offices those that we know to be subsidized and to represent their advertisers rather than their readers.

Explain to your friends and patients that practically every newspaper in the United States is a silent partner in the nostrum fraud business. That it is bound to silence and to aid in defrauding the people into using alcoholic nostrums by the following clauses in its advertising contracts with the nostrum trust:

1st. It is agreed in case any law or laws are enacted, either State or National, harmful to the interests of the (Nostrum Manufacturing Co.), that this contract may be cancelled by them from date of such enactment, and the insertions paid for pro rata with the contract price.

2d. It is agreed that the (Nostrum Manufacturing Co.) may cancel this contract pro rata in case advertisements are published in this paper, in which their products are offered, with a view to substitution or other harmful motive; also, in case any matter otherwise detrimental to the (Nostrum Manufacturing Co.'s) interests is permitted to appear in the reading columns or elsewhere in this paper.

(See *Collier's Weekly*, Nov. 4, 1905.)

Originally all lepers in Norway were confined to institutions. At the present time, however, only indigent lepers and those who can not be suitably cared for at home are required to enter an asylum, where they live under the best hygienic conditions. Other patients are allowed to remain at home, with the understanding that they sleep alone and, if possible, have separate rooms, that their clothing, linen and eating utensils be used by no one else, and that proper precautions be taken in the washing of linen. Dressings and bandages must be burned. Under these regulations the number of lepers in Norway has decreased from 2,870 in 1856 to 577 in 1900. Banishment to a particular island is practiced in the Sandwich Islands. Segregation of lepers should be brought about in this country.—*Journal A. M. A*

MEDICAL LAWS AND THE INFLUENCES THAT MOULD THEM.

By S. D. VAN METER, Denver.

PART I.

Medical Laws.

Within the range of the subject "Medical Laws" very properly may be included many different statutes, but for the purpose of this paper the subject will be confined to laws regulating the practice of medicine. These statutes, while apparently simple enough in their phraseology, present many phases of delicate construction and application; and few are they who realize their full purpose and understand their operation until they have had experience in their administration. * * * It hardly seems necessary to state that the one purpose or object of these laws is to protect the public health by regulating medical licensure on the basis of an educational and moral qualification, the standard of which will insure the proper care of the sick and injured. * * *

As the one problem in medical legislation is that of maintaining a uniform educational standard as a basis of licensure it can not be too strongly stated that until the profession, the legislators and the public can be educated to the point of realizing that the state, through the medium of the medical law and its administrative board, must as a safeguard to the public health, fix a uniform educational standard for all men and women engaged in the healing art irrespective of school or pathy, there exists a great danger of lowering the standard of licensure by the enactment of laws fixing different standards for the various schools. The dissensions in the profession and the ignorance on the part of the laity as to what should be, will allow that false doctrine, the progeny of the sciolists, which was conceived in iniquity, born in sin and is now being nurtured and reared by its infamous parents, and which teaches that it is not necessary for the practitioners of one school to possess as much education as another, to displace the keystone of the uniform educational standard for all supporting arch of our present law, viz., practitioners. * * *

The inconsistencies of many of our state statutes have periodically brought forth advocates for a national law regulating the practice of medicine, and undoubtedly had our form of government been so arranged as to permit of such a system of medical licensure, it would be a great improvement on the regime in vogue. However, when we adopted our National Constitution the control of the professions was not delegated to the Federal Government, and in consequence remained within the police power of the states. Therefore, it would be necessary for the states to relinquish their rights to the Federal Government before any Federal statute regulating the practice of medicine could be made legal; which, while possible in itself, would establish a precedent in legislation, the very suggestion of which would nip the attempt in its very outset. The old question of state rights would be immediately raised, and we all know how wise it is to let that subject alone. * * *

To-day we have the majority of the license boards following the method of universal, uniform written examination. In addition as prerequisite to application, most boards insist upon the possession of a medical diploma from a school which has ostensibly enforced a curriculum of study fixed by the board, and required of all students certain preliminary courses of instruction as a *sine qua non* to matriculation. It does not require much investigation to see how deficient this method is, if any regard is made for equity and justice to all classes of applicants. The natural inference would be that it must be the best method or the majority of boards throughout the country would not have adopted it. A little study of the subject reveals that universal written examination of applicants is the easiest way for a board to get through their work. It enables the board to reduce its labors to almost a mechanical process, wherein but little mental effort is expended, and very frequently the question lists and grading of papers are left to clerical assistants. This opportunity of relief from hard labor, which the careful consideration of the question involves, is the chief explanation of why the method has been adopted. Were it supplemented by the boards taking into consideration the examinations made by other boards, many of the objectionable features of the method would be removed, but as nothing is ever settled until it is settled right, other features of this common method which are wrong will in time, of necessity, be changed. Very little objection could be raised by recent graduates in being required to take a rigid State Board examination, but it need not be repeated by every board to whom they apply for license. However, no sane person can maintain that it is necessary to require written examinations of graduates of many of our best schools to enable licensing boards to decide as to their educational qualification as applicants. Furthermore, it is perfectly plain that a statutory provision making it mandatory on the part of a board to examine by the written method all applicants, irrespective of past record, age or years in practice, limits the discretionary power of the board—amounts to an insult to the judgment and integrity of its members, and makes their duties clerical, instead of quasi judicial—as they should, and must be, if the proper administration of the law is to be expected. The injustice and inequity of the universal examination method fall hardest upon the old established practioner, who, for reasons of necessity or choice, wishes to make a change of residence. Experienced and well qualified as a physician and surgeon, he is in no way prepared to stand the test of qualification as offered by the average state board written examination. To obviate the injustice of the method to the established practitioner, some good intentioned earnest workers have labored hard and long in perfecting the intricate detail of the scheme of so-called reciprocity in state licensure; well intended, but so burdened with nullifying provisos that it is no wonder it has not accomplished more good than it has. Nearly all of these reciprocity sections provide that the license board operating thereunder shall not accept the license from another state as evidence of educational qualification, unless the state granting the license accept their certificates, no matter how high a standard the other state is known to maintain. The injustice to the applicant who has qualified is not hard to see. He is made to suffer for the shortcomings of the board and statute of the state whence he hails, by the board before whom he stands as an applicant for license. Such retaliative measures would hardly be expected in a liberal profession.

The proper solution of this vexatious problem of standard and method of determining whether an applicant possesses qualifications equivalent to the adopted standard is approached, if not fully accomplished, in the method made possible by the recent amendments to the Colorado law, and now administered by our Board of Examiners. * * *

Our method of administering this most important part of a medical registration law permits us to use any legitimate means of ascertaining a knowledge of an applicant's qualifications, and allows a board to use that method or those methods applicable to the case in question, and insures the administration of an equity impossible by any one method. The only fault found with this plan is a fear on the part of the

uninformed that a board will abuse such wide discretionary power. In answer to such opposition it is sufficient to say that if you start with the suggestion that the members of your board are dishonest and unscrupulous you might as well go no further because the law can not be drawn that will accomplish aught if administered by such a board.

Another defective feature often incorporated in medical laws requiring universal uniform written examination is that of insisting upon certain preliminary education and a diploma of a recognized school as a prerequisite to admission to examination. These requirements are right and just so far as determining the qualification of applicants is concerned, and no board should, except in rare instances, consider an applicant qualified who does not possess such credentials. **Nevertheless, it is a serious mistake to insist upon them as prerequisite to application.** Nothing in particular, except the labor of investigation or examination, is saved thereby, while much is lost in the way of sacrifice of prestige with the public and the control of the very class, viz., the irregulars, the very people upon whom medical boards should expend most of their time and energy. **The members of the profession who make an honest effort to equip and qualify themselves need but little regulating. The men who are trying to get a legal standing without making any effort to qualify themselves are the people for whom the law is most needed.** To refuse the votary of any *pathy* the privilege of applying for a license because he has not received an M. D. immediately **places that individual in position of advantage when arraigned in court for illegal practice.** Specious though the stand may be, his plea that he is qualified, and stands ready and willing to show his qualifications, but the statute and board administering it will not allow him such opportunity until he has pursued a course of study he claims he does not believe in, is a hard one to overcome when arguing to the average court or jury. Further, this same unnecessary provision **gives the irregulars their greatest foothold when trying to secure separate laws regulating their special pathy,** because our legislators must be expected to listen to anything which can be made to sound unfair or oppressive to any class. If the disciple of any cult can show that he is not allowed to apply for a license in any state until he has taken the course prescribed and taught by another school or schools, right then and there he is going to have a fair opening toward securing separate legislation, which, when enacted, gives him equal legal standing with the oldest and best established practitioner in the state. **Too much stress can not be laid upon this point as a salient defect of many of our medical laws, but I am happy to say that it, nor the foolish provision of examining upon materia medica and therapeutics, does not exist in Colorado, nor do we have separate regulation of the different pathies—as obtains, to the discredit of medicine and the disadvantage of the people, in many of our states.** Could the original plan, as was first adopted in many of the states and exists still in Alabama and North Carolina, of the state delegating the full control of practice to the State Medical Society, have been continued it would have been fortunate, as the conditions (the shortsighted school jealousies) that led to its abandonment will soon be removed. The knell of sectarian medicine, so far as the administration of registration law, where it never had any place, has been rung, and to a great extent has been made certain through education and its development of liberality. Osler sounded the pulse of the profession when he penned the following:

"It is now time that the homeopathic brethren were coming into the fold. It is now long past the time when a difference in drugs should separate men with the same hope. The homeopaths are awake, but they must realize the anomaly of their position. The original quarrel is ours, but they should not allow themselves to be separated by a shibboleth that is inconsistent with their practice to-day. And the rent in the robe of Esculapius is more grievous in this country than elsewhere in the world." * * *

With the hopeful signs that sectarian medicine is soon to be a thing of the past, and the profession will be composed of educated men of tolerant and considerate mien toward those who may differ with them upon mooted points, we may expect to see state society control of the licensing bodies reinstated. The medical society of the near future, composed as it will be of men of education, and well trained in the science and art of medicine, but in many instances holding decidedly different views on therapeutics, will be far better qualified to select the personnel of the administrative board than the State Central Committee of the political party which happens to be in power. Until we have such a society it must of necessity fall upon the several state societies to exert their efforts in trying to secure the best men possible for membership on the State Medical Licensing Board. I believe in composite boards, as **when the statute is so drawn as to render it unnecessary to raise sectarian questions it becomes a great school for the members of different therapeutical beliefs to learn that the other man is just as earnest as he in raising the standard of medical education.** * * * The policy of appointing a board for each school of medicine was the outcome of petty school jealousies, **which could all have been averted had the state refused to recognize any school, and adopted the plan of not requiring an examination upon the subjects of materia medica and therapeutics.** The rapid multiplication of schools soon proved to the legislative bodies the bad precedent they had established and the utter futility of trying to give each pathy a separate board. It also brought the educated members of all schools to see that it was absolutely necessary to bury forever sectarian medicine when administering medical registration law, that license boards did not meet to fight for the supremacy of therapeutical beliefs, but to sit as fair-minded men to decide the one question of whether or not the applicants for license who presented themselves for examination possessed the proper standard of educational and moral qualifications to make them safe practitioners in the field of medicine. It is, however, surprising to see how many examiners, even now, think it impossible to decide whether an applicant possesses the educational qualifications to make him a safe man to license unless he be examined on materia medica. Personally I should be satisfied to decide after the privilege of examining an applicant on pathology and physiology.

Another defect in our laws, in a great measure due to the method of selecting and appointing the members of our boards, is that of not securing men qualified by training and natural tendencies to make good examiners. This is manifest in many of the lists of questions chosen by different boards throughout the country as a test of qualification. Many of these published questions must be acknowledged as unfair and wholly inadequate to elicit the desired information, viz., the applicant's real knowledge of the subject. Too frequently they are more calculated to determine what the applicant does not. instead of what he does know. It must be admitted that there is much that the best of men do not know, and that a fool can ask questions that a wise man cannot answer. The profession cannot be too strongly urged to lend their constant efforts in trying to influence the appointing power to select men who are capable, and who will discharge their duty with credit and honor to the state and the profession. Let the men who will make good examiners be advocated irrespective of school or faction, as those things should have nothing to do with the selection of the personnel of an examining board. * * *

One of the most important features of a medical law is the provision relative to the prosecution of those who break it. These laws are really of remedial nature, though generally classed as criminal. Should a court consider the statute purely criminal, and to be construed with the customary strictness of a criminal act, it becomes very difficult to secure a conviction. Therein lies the chief protection of the quack and the cause of the failure of the law to accomplish its main object, viz., to protect the public against charlatanry. One only has to scan the pages of our magazines and daily press to see that quackery is rampant in almost every state in the union, and especially in those which boast of their high standard of medical licensure. **In many states all energy is expended in seeing that no one is licensed unless he possess an extra high standard of qualification, but nothing is done to stop the unlicensed quack, who plies his trade with impunity.** In others the process of prosecution is hedged about with so much "red tape" that it takes years to secure a decision, and the authorities are either derelict or spasmodic in their efforts to enforce the law. * * *

Last, but not least, of the salient features of a medical law that I wish to consider in this paper is the proper definition of what constitutes the practice of medicine. No section of this, or any other statute has been the battleground of so much legal quibbling, and the greatest difference of opinion exists in the Supreme Court decisions handed down in cases depending upon what constitutes the practice of medicine. The diction of the several statutes in a measure explains this difference of opinion, but not altogether, as many times where we see the widest difference of opinion we find the working of the statutes the same or strikingly similar. The difficulty has been to get a definition sufficiently concise to prevent misconstruction, and at the same time comprehensive enough to cover all classes of infraction of the law. The essential basis of any such definition must be: **"The holding oneself out as being engaged in the care of sick or injured human beings,"** and that irrespective of the form of treatment, because any attempt to make the form of treatment an essential part of a definition not only renders conciseness an impossibility, but necessitates the procuring of evidence that is next to the impossible when prosecuting a case under such a statute. * * *

PART II.

The Influences that Mold Medical Laws.

As is true in the history of all problems involving questions of public welfare, the history of medical legislation is replete with bitter battles waged between contending forces. It is, however, specially interesting to study the nature of the forces influencing medical legislation, because we find them so different from what we should naturally expect. For the purpose of consideration they may be classified after the true Hibernian method, viz., for and against. Among the former we should expect to see the desire upon the part of the people to protect themselves against incompetency, quackery and all that those terms embrace, the strongest factor in the enactment of these statutes. But in no instance can it be asserted that the people have ever taken the lead or shown the least interest in the enactment of a medical law. On the other hand, we find that it has been the medical profession who have taken the initiative in securing the passage of these laws, primarily intended for the protection of the public health, and beneficial to the profession only in an indirect way. The fact that medical men have been so earnest, unselfish and persistent in their support of these laws, in the face of the apathy and indifference manifested by the people, has always militated against successful medical legislation, because it is difficult to establish the fact with many persons, especially members of our legislature, that there exists in the heart of man such a thing as a desire to labor for principle.

Our efforts, however, have to a great extent been poorly generalled, disconcerted and spasmodic in character, with no definite plan for action common to any two states, and frequently in the same state we find each succeeding legislative committee totally disregarding the work and plans of its predecessor. They discover too late that they would have been more successful had they profited by the experience of those who had gone before them. What the profession needs, and must have before there can be uniform ideas regarding medical legislation and concerted, definite plan of action, is to have some deliberative body meet, discuss and agree upon the proper principles underlying the several essential features of a medical law. Such a body shoud be made up of at least one representative from each state and territory, and the federal district, and should hold a session of fifteen to thirty days, in which time they could agree upon the essential features of a model law, and adopt a plan of action to be recommended to the several state committees. An attempt to secure such a model act was made at the National Legislative Council two years ago, but, owing to the necessity of carrying on their labors by correspondence among the members of the committee, it failed to accomplish anything. For the same reason so many of our A. M. A. committees who meet for a few moments during the annual session, seldom with a majority present, and frequently do not meet at all, fail to achieve aught toward the purpose for which they were appointed. It takes time and deliberate thought to accomplish anything along these lines, and the sooner the profession realizes the necessity of tackling these problems in the proper manner, the sconer we may expect success to crown our present disconcerted, spasmodic efforts.

Passing on to the consideration of the forces influencing medical legislation adversely, we find the spirit of charlatanism to be the all-important factor or force that has blocked the progress of medical legislation in the past; and in the future it will be the most formidable obstacle to overcome in correcting the defects in our existing laws. In considering charlatanary in this phase we must not forget that it is not limited to the advertising and blatant quack. We see its diabolical influence springing from sources we should not suspect. A wolf in disguise is far more dangerous than otherwise, and it is not surprising that we should find so many of our older doctors losing faith in the ethics of the profession as a whole. It is no wonder that we see pessimism on the increase, when sharp practice and deeds that would not be considered honorable among highway robbers are indulged in by members high in the profession. True, the quack has his direct influence with legislators in a material way, and indirectly through the venal press, but the load that the profession carries in the quacks who are sufficiently shrewd to remain within the ranks is incalculable. Their acts are like one's own misdeeds, difficult to defend and ever in the pathway to success. As coadjutors of the quack may be named that horde of deluded mortals, who through the teaching of medico-religious vagaries become fanatical, and who at the very suggestion of a law that might indirectly interfere with the practice of some tenet of their faith, throw their entire membership in absolute solidarity against the measure which in reality is designed to protect them against imposture. It must be admitted the most devout Faith Curist wants and seeks the services of a physician when pain gains supremacy, be it a belief, a phantom or a reality—and furthermore, they are then very anxious to have the best talent the community affords. These self-same fanatics, whose creed is so full of deity and love as to make it meaningless to the ordinary individual, join forces with those human vam-

pires, the quacks and professional abortionists, and sing "Hosannahs to God on High" when they have defeated a measure calculated to raise the educational and moral standard of those to whose tender mercy the sick and suffering are to be given.

How it is best to deal with these people is a difficult problem. Personally, I believe it is better to assume the attitude we generally find effective in handling a hysteric—one of sympathy, guarded by firmness; sympathy for their ignorance and misdirected efforts, but a firmness that will not allow imposture. The disciple of any faith must be allowed full religious liberty, but he must be made to understand that **a creed cannot be so construed as to allow him to assume the offices of a profession which the state has regulated by statute,** any more than the Mormon can continue in polygamy under the guise that it is a tenet of his religious belief. It is better, however, to let these religious fanatics indulge in their incantations so long as they do so as duly ordained ministers of their church, but when any one attempts to deceive the public as being engaged in the healing art under the guise of a religion or gift from heaven, he becomes a dangerous individual to society, and should be made to feel the strong arm of the law. It must be remembered that in protecting the public health it is the worst of folly to attempt to accomplish it all through the medium of the medical registration law. The misguided fanatic who withholds surgical aid from the child who may be bleeding to death can and should be handled under the statute which imposes a penalty upon the parent or guardian who fails to care for his child or ward. Again, when fanaticism causes its votaries to deny the existence of smallpox or the other well-known contagious diseases, the proper enforcement of the public health and quarantine statutes will prove far more effective. In fact, they seldom fail in prosecution, because the public are informed as to the nature, and know the danger of spreading contagious diseases.

The most potent force that influences medical legislation adversely, and one for which the profession have themselves to blame, is the profound apathy and indifference the majority of its members manifest in matters pertaining to the enactment or amending of these statutes. With unwarranted school dissensions and this apathy on the part of the profession, how can we expect a few enthusiastic members to cope with the solid front of the opposition? Of the sixteen hundred registered physicians in Colorado, less than three hundred contributed to the legislative fund during the last two years, and counting the total contributions from individual members, and society appropriation during that period of time, your committee has received about thirty cents per annum per member.

Further, it should be remembered, it is far easier to oppose legislation to a successful end than to secure the passage of the most just bill imaginable. It is to be sorely regretted that such a large portion of the profession are so apathetic in legislative matters, but when we consider the life and duties of the average medical man it is not surprising. Hard worked, underpaid and pinned down to the routine of practice in which he is, as a rule, absolutely czar as to opinions and conditions, it is no wonder he develops traits of character unfavorable toward making him an integral unit of an organized body whose key to success lies in following those in command. It is calculated to make each one a leader, but we all know that in battle we need more privates than officers. This phase of our life is unfortunate, and for that reason should we cultivate consultation and society intercourse on every turn. The ablest men can often learn lessons of value from their inferiors. Our legal friends have the decided advantage of us, as they are daily crossing swords with their brother practitioners, which has the effect to keep down their bump of conceit. Lawyers frequently engage in the most formidable fight before the bar, in which each may assail the judgment and opinion of the other in the most vigorous manner and a few moments later meet as the best of friends. How is it with us? If in consultation we happen to differ in opinion, what diplomacy, what choice of language do we have to resort to lest we offend? Often then the over-sensitive nature our environment and life have developed causes us to consider such difference of opinion as an insult to our professional ability.

Nothing strengthens a man in his chances of winning a contest more than to realize his own shortcomings. **We as a profession should recognize the danger of becoming narrow-minded and autocratic through the conditions peculiar to our work, and do all in our power toward the development of the broad spirit of freemasonry, liberality and consideration of the opinion of others.**

In many states the dissension in the profession, caused by school jealousies and the attempt on the part of the regular school to abolish sectarian medicine by force instead of by argument and due consideration of the rights of others to their opinions, has been in the past, and is still, an influence that is damaging to the progress of medical legislation. We in Colorado are fortunate in regard to this matter, as the representatives from the majority of schools some time ago recognized the absolute needlessness of dragging the question of sectarianism in matters pertaining to medical licensure. They saw that the state **could never afford to recognize any school of medicine or attempt to regulate the practice of medicine upon any other basis than that of a uniform educational standard common to all practitioners, irrespective of therapeutical belief.** It is to be hoped that in the future no one will be so shortsighted as to stir up any dissension upon this point, and start anew the strife that was in the past a serious obstacle toward the enactment of a good medical law. There was a time, and in some localities the influence still obtains, although it will not last long, when the commercial medical school played an important role in moulding our medical registration law. Bitter has been the opposition from such institutions, but it is gratifying to note that in no instance have they succeeded in the end, and today those back of commercial medical colleges might as well, as did Belshazzar of old, read the handwriting on the wall: *"Mene, Mene, Tekel, Upharsin."* They have not been driven from the field by any legislation or opposition. The natural trend of affairs has made it impossible to give the course of instruction demanded by the rapid advances in medicine outside of a medical institution equipped as cannot be expected of other than one that is well endowed. This means that it costs more to give such a course of instruction than is charged in our best universities, and while a few men may bolster up a school in which they take pride, having perhaps been identified with it since the granting of its charter, and in which good work was done in its day, but having the present conditions to reckon with, it is only a matter of a short time until such institutions must either secure ample endowment to obtain the proper equipment of its plant in keeping with a modern university, consolidate with some well endowed institution, or go out of business.

Notice.

Information Wanted as to the Practical Lives of the Blind.—Dr. George M. Gould, 1722 Walnut street, Philadelphia, will be grateful for any trustworthy information as to the methods which have been devised by the blind in overcoming their disability or in gaining a livelihood. Accounts of such lives, anecdotes, references to literature, etc., will be appreciated.

HERZSTEIN LECTURES IN THE UNIVERSITY OF CALIFORNIA FOR 1905.

Special Chemical Problems Related to Practical Medicine.

Synopsis furnished to the JOURNAL by the lecturer.

LECTURE.—II.

The Theory of Disinfection.

By ALONZO ENGLEBERT TAYLOR.

Germicides may be divided into two groups: (a) those that act by structural alteration, such as mercury, acids, alcohol, formaldehyde, etc.; (b) those that act by inhibition of function, such as hydrocyanic acid, chloroform. Destruction of structure will always be followed by disturbance of function, and vice versa, but in the two groups the primary direct insult will be to structure or to function. In higher species, death from suffocation, hydrocyanic acid, etc., is due to the sudden inhibition of an essential function; in phosphorus and arsenic poisoning, on the other hand, the primary insult is to structure.

In the consideration of the germicides that act by alteration of structure we shall encounter many facts that are not only of practical importance, but which illustrate the realization in biological material of several general physical laws.

Germicides that affect primarily the structure of bacteria act so far as we know in the following ways: through oxydation, dehydration, coagulation, through chemical combination of the germicide with some constituent of the bacterial body, through alteration of the cell membrane, through a disturbance in the saline balance, and by virtue of colloidal properties.

Of the germicides that act primarily by oxydation are potassium permanganate, the peroxides, chlorine, iodine and bromide and all salts containing these elements as free gases, hydrochloric, nitric and sulphuric acids, the oxides and chlorides of lime, iron and manganese, cupric sulphate and many others. The oxydation is enhanced by the presence of oxygen, and also by sunlight. These germicides possess to greater or less degree the power of penetration; those that are themselves used up in the reaction with the organic matter, like hydrogen peroxide and potassium permanganate, possess little power of penetration; the acids, the halogens, and most of the metallic salts are not used up so much in the course of the reactions they inaugurate and have a corresponding power of penetration. These germicides are as a rule rapid in their disinfection, and their properties of penetration and rapidity of action are what have made them favorites for many types of disinfection. For example, bromide, iodine and nitric acid are the most certain germicides to be employed in the disinfection of the wounds suspected of infection with the bacillus of tetanus, the commoner germicides like mercuric chloride lack the necessary penetrating power. For the sterilization of surgical instruments and dressings most of these substances are entirely unadapted.

The germicides that act by dehydration are few. Nitric and sulphuric acids, lye, chromic acid, zinc chloride and alcohol when used in concentrated solutions act largely by dehydration. The lye acts further by saponifying the lipoidal substances.

The germicides that act purely by coagulation are few. Alcohol does so act, in addition to being a dehydrating agent and a solvent for lipoidal substances.

A large number of germicides act through combination with some component of the bacterial body. The salts of mercury, the different salts of silver that are soluble in water, the salts of copper, carbolic acid, formaldehyde, liquor cresolis compositus and the cresols, and many others act apparently by effecting chemical combinations with substances in the bacteria, with the resultant death of the germ. Some of these combinations are soluble, some are insoluble, some are colloidal. These same substances effect similar combinations with the constituents of animal tissues, and there is some likelihood that they may combine with these as readily or more readily than with the bacteria.

That germicides might act by producing alterations in the cell membrane is a possibility that has been made very attractive by investigations in cytolysis. The cell wall may be looked upon as a colloid of a more dense phase than the protoplasm of the cell. This membrane is rich in fatty substances, and in the physical sense we may speak of it as a semi-permeable membrane. The researches on the cytolysis of the red corpuscle have taught us that the integrity of the cell depends upon the preservation of the physical characteristics of this cell membrane; the respiration of the bacterium, the passage inwards of nutrient material, the passage outward of the products of metabolism must be dependent upon the integrity of the cell membrane. Some of our most active germicides, like alcohol, liquor cresolis compositus, creolin and many others of the synthetic type, have the power of dissolving lipoidal substances and in this manner the integrity of the bacterial cell wall would be destroyed. That these substances act in this way alone, is not known.

A proper balance in the saline medium is of the greatest importance to the life of many types. The investigations of Loeb have indicated that saline mixtures that are innocuous to one may be toxic to another species. Sea water is germicidal to many pathogenic bacteria, and it is more rational to suppose that this is due to particular ionic relations than to a direct toxicity. The migrations of ions through the cell wall of unicellular organisms have not been well investigated. If we may judge by the relations in red blood cells, however, these migrations display great elective tendencies.

The known facts for red corpuscles furnish a good illustration of the possible magnitude of these saline relations within and without a cell. The cell wall of the red corpuscle is permeable to the following non-electrolytes: the alcohols, aldehydes, esters, urea, antipyrine, biliary acids and salts, and to many other substances; it is impermeable to the various sugars, to most coal-tar substances, and to the amido bodies as a group. Of the electrolytic metallic salts, the cations sodium, potassium, lithium, calcium and magnesium cannot pass the cell wall, but the ammonium ion does pass in. That the ions of mercury, silver and copper pass into the red corpuscle has not been demonstrated. The hydrogen ion can pass in. Of anions, the hydrodlyl ion, and the ions SO_4, NO_3, CO_3, bromine, iodine, and the anions of many organic acids, as citrates, acetates, pass through the cell wall.

Of the undissociated salts, all diffuse to some extent when in hypertonic solution. The velocities of these diffusions, both ionic and molecular, is quite different with the different substances. If now we suppose that bacterial cells display similar electivities, it becomes apparent that the saline relations of the system may modify greatly the resistance of bacteria to germicidal action of the metallic salts. It is easily possible, also, that from these ion migrations the death of the cell might result. There are to my knowledge no experimental investigations of this matter in their relations to bacteria.

Lastly we have germicides consisting of metals in the colloidal state. Silver, mercury, gold, platinum, copper, nickel when in colloidal suspension act as pronounced germicides. The same is true of the colloidal suspensions of the combination of these metals with organic molecules. Colloidal silver and copper are the most powerful germicides, acting on some algæ at a dilution of 1:100,000,000, where bichloride of mercury requires 1:100,000. For their action there are several possibilities. Firstly, the colloid may pass into combination with some con-

stituent of the bacterial protoplasm; this is improbable, since being colloidal the substance has no power of diffusion into the cell. Secondly, the colloidal metal might act by the spreading of a film over the bacterial wall, thus excluding oxygen, and disturbing the ingress of nutrient and the egress of metabolic products. Thirdly, the colloidal metal may act as a positive catalysor to some of the body functions of the bacterium, to oxydation, to autolysis. For the colloidal complex combinations, it is possible that the silver is dissociated, and then enters into ion combinations with some constituent of the bacterial cell.

It is apparent that many germicides possess more than one of these properties, and act in more than one way. It is also apparent that all these germicides must in a general sense act toward the cells of a higher species as they do towards the bacterial cell. It follows that the results of experimental studies with suspensions of bacteria cannot be held to apply without question to the problem of germicidal action in tissues.

Quantitative relations and the influence of different physical states upon germicidal action. In how far is disinfection accomplished by the molecule? In how far by ions? In many germicides it is the molecule that acts. This is not only true of the organic substances that are not subject to any measurable dissociation (such as carbolic acid and formaldehyde); it is also true of the halogens, of nitric and sulphuric acids and of some electrolytes, when used in concentration. For many of the electrolytes, however, the germicidal action is in general terms proportional to the dissociation. For the salts of mercury it has been shown that the power of germicidal action in different concentrations is related directly to the dissociation, and this germicidal action is the property of the mercuric ion and not of the anion. Thus solutions of the bichloride, bromide, iodide and cyanide of mercury have the same germicidal action when they contain the same number of dissociated ions of mercury, although the total concentrations of the different salts is quite different. A solution of mercuric cyanide to be equal in germicidal strength to a solution of corrosive sublimate will have to contain four times as much of the salt, since the dissociation is only one-fourth as great; in short, the germicidal action of solutions of these mercury salts runs parallel to their power to conduct the electrical current, not to the strength of the solutions by weight. What does the work is the dissociated mercuric ion, not the chlorine, bromine or cyanide ion, not the undissociated molecule. This means that within certain limits a weak solution of corrosive sublimate is practically as active a germicide as a stronger one, up to the point where the solution becomes so strong as to exert a caustic action. It does not mean at all that the ideal solution for a wound is one of ionic action alone, since in many wounds a penetrating action, the caustic action, may be highly desirable. But for the simple action on bacteria themselves, the germicidal action seems solely related to the mercuric ion.

When, however, we come to other salts of mercury, we observe different relations. The nitrate, sulphate and acetate of mercury are all more soluble than the bichloride, and more highly dissociated, nevertheless they are weaker germicides. The nitrate of mercury, in solution of the same degree of dissociation as a solution of the bichloride, is only about one-fifth as strong a germicide; in some way, therefore, the anion seems to hinder the germicidal action of the mercuric ion. The nitrate of mercury is a much more active caustic, but a much less active germicide than the bichloride.

The investigations with the salts of silver, copper and gold have shown further that the germicidal action is not parallel to the electrolytic dissociation. In some instances it seems as if the anions participated in the disinfection, in some the entire molecule seems to participate, in other instances the anions seem to antagonize the germicidal intensity of the cations.

For the many deviations from the rule that the germicidal action of a metallic salt is a function of the dissociated cation, there are several considerations that have a bearing on the relations. The different metals do not diffuse with the same velocity. To destroy the germ the ion must enter the bacterial cell (unless it act on the lipoidal membrane.) This act of diffusion requires time, and for different metals, different times. The time limit set to the experiment must take this difference into account, and for the experiment with different metallic salts we must allow that time which experiments on diffusion membranes show is needed, and then compare the germicidal results. When this is done, the results are more in accord with the theory. The saline content of the medium must be controlled, since this would have an influence on the ion diffusion, because for each ion that passes into the germ another ion of the same electrical sign must diffuse out, and this would depend on the saline relations.

Another factor is the diffusibility of the anion. If in a case of a certain mercury salt only the mercury can pass into the cell and the anion cannot, a different state of affairs will be produced than in the case of another salt in which the anion can also pass into the cell. The possibilities of complex combinations with salts and protoplasmic constituents would be obviously different in the two experiments.

Salts with a low toxicity might easily fail to realize the parallelism between germicidal action and dissociation, because for every ion that passes into the cell of the germ, one ion of the same electrical sign must pass out. If now the ion under investigation were not highly toxic, many ions would need to enter the cell in order to kill, and it might be that there were not in the cell enough ions of the same sign to pass out; under such circumstances, no parallelism could be expected to obtain. In the case of a very toxic ion, the reciprocal outwandering ion would be more easily available.

It is possible to modify the dissociation of metallic salts by alterations in the solvent, and practical advantage is often taken of this fact. If to a solution of corrosive sublimate we add any chloride or hydrochloric acid, we diminish the dissociation of the mercuric chloride, and thus reduce the germicidal strength. In the common tablets of corrosive sublimate, some salt, usually ammonium chloride, is added in order to increase the solubility. This weakens the proportional germicidal strength, a 1-1000 solution without the chloride is much more germicidal than a 1-1000 solution containing the salt. In the sterilization of instruments and materials, therefore, the chloride would better be absent. When the solution is to be used on the operation wound, a new fact enters. Ammonium chloride prevents in large part the precipitation of a protein-mercury combination, which would be an evil were it to line a wound. Healing will therefore follow better in a wound treated with corrosive sublimate containing ammonium chloride than with the simple solution. The solution with the ammonium chloride has also a greater penetrating power, and would therefore be preferable in the cleansing of an accidental wound, despite its lesser germicidal power.

If we prepare a solution of corrosive sublimate in absolute alcohol, we will have a solution that is practically not dissociated, and has no more germicidal action than the alcohol. If we use a dilute alcohol, we find that although the dissociation of the salt is much less than in water, the germicidal action is greater. Furthermore we find that though HCl when added to a watery solution lowers the germicidal action, when added to a dilute alcoholic solution it increases the germicidal action. Probably the best germicidal solution of corrosive sublimate is composed of mercuric chloride 1, hydrochloric or nitric acid 5 and 60% alcohol 1000. In this solution the germicidal intensity is out of all proportion to the concentration of

the dissociated mercuric ion. The probable explanation of this fact is that alcohol is a fat solvent, a solvent for all lipoidal substances, and following its action on the cell membrane, the diffusion of the mercuric ions is facilitated. In addition the alcohol is itself a germicide, and a dehydrating and coagulating agent. The same relations hold for silver nitrate, and to a less extent for the other metallic salts that are soluble in alcohol.

In the case of dilute acids, mineral or vegetable, and of alkalies, the germicidal action is quite closely proportional to the dissociation. Acetic acid is less toxic than demanded by the dissociation, oxalic acid more toxic. These differences are probably due to the anion concerned. Oxalic acid is in general a very toxic substance. The addition to a dilute acid of a salt of the same acid will reduce the dissociation. Thus if we add sodium chloride to a solution of hydrochloric acid, it will lower the dissociation of the acid, but contrary to expectations the germicidal action will be increased. The same fact holds for the inversion of sugar by acids; it is favored by the presence of a salt of the acid. This is probably in both instances an example of catalysis.

Organic Germicides. There is here no factor of dissociation. Pure carbolic acid has no greater germicidal power than a five per cent solution. The same is true of liquor cresolis compositus, trikresol and formaldehyde. The explanation is that in the absence of water the diffusion into the bacterial cell is slow. The caustic action of the pure substances is however marked, in accidental wounds therefore it is far better even though the purely germicidal intensity is no greater. The germicidal activity of most of these bodies is greatly increased by the addition of electrolytic salts. Thus a five per cent solution of carbolic acid in five per cent sodium chloride is double in germicidal power that of the simple solution. The salt lowers the solubility of the carbolic acid, and thus it increased its relative solubility in the intracellular substance. The intracellular substance has salts, if the solution has none, carbolic acid will be most soluble in the solvent; if the solution be heavy in salt, carbolic acid will be more soluble in the protoplasm, and will pass in. The addition of a little hydrochloric acid increases still more markedly the germicidal action of a solution of carbolic acid, far more than can be explained by the reduction in solubility. Apparently the hydrochloric acid in some direct way accelerates the entrance of the carbolic acid into the cell. The presence of alcohol nullifies the germicidal action of carbolic acid almost entirely.

Though not investigated in detail, it is clear that the coefficient of distribution is destined to play a very prominent role in biological processes. Thus the predilection of anesthetics, narcotics and of tetanus toxine for the central nervous system is simply the result of their greater solubility (or solvent action) in lipoidal substances than in aqueous solutions. Once in the central nervous system they may or may not enter into chemical combinations with the constituents, but their primary localization there, rather than in the general body fluids is an expression of the coefficient of distribution.

The velocities of these several organic germicides are different. This is only intensified in the case of those substances that have a certain power of solution for lipoidal substances; these would obviously be able to enter the bacterial cell with greater rapidity. All substances that increase the permeability of the cell wall must be expected to augment the germicidal action of any antiseptic.

Whenever a germicidal solution is applied to bacterial or animal cells, we have the phenomenon of adsorption. The film of the solution about the cell contains a higher concentration of the germicide than does the solution. The increased concentration in this film at the boundary of contact of the cell wall and the solution will depend in part upon the solution—its concentration, solubility, viscosity—it will depend in part upon the nature of the cell wall. The concentration will be greater, for example, in the case of bacteria than in the case of a powder like talc. The lipoidal characteristics of the cell wall must also be of influence.

The action of germicides is influenced by temperature. Entirely apart from the action of high temperature on protoplasm, a germicidal solution will act more rapidly and effectively at a higher than at a lower temperature. A solution of corrosive sublimate acts much more rapidly at 50° than at 20°. This influence of temperature has two causes. The velocity of diffusion is accelerated by increase in temperature, and thus the entrance of the germicide, ion or molecule, into the body of the germ will be hastened. The coefficient of distribution will be altered, and this alteration will in general be positive in the direction of an increased relative solubility of the germicide in the protoplasm of the bacterium. If a frog be kept at room temperature and given a mimimum lethal dose of chloral, the symptoms may be entirely removed by placing the frog into a low temperature; at the high temperature enough of the chloral hydrate will be dissolved in the lipoidal substances of the central nervous system to produce symptoms of intoxication, at the low temperature enough of the drug will not be dissolved and no symptoms are produced, though the drug is present in the circulation.

The germicidal action of any solution will be modified by the presence of foreign bodies. We have already seen how the presence of salts may modify the action of germicides by modifying the degree of dissociation, the velocity of diffusion and the coefficient of distribution. Most of the germicides have a tendency to enter into complex combinations with the proteins. If these be present in the same system with the bacteria, the germicide has an opportunity to display a relative affinity for the protein or the bacterial protoplasm. This must lead to irregular results with different germicides. Furthermore these colloids will hold some of the germicide by physical adsorption. Thirdly, lipoids disturb germicidal action by modifying the rate of diffusion and also the coefficient of distribution. They tend further to form a film about the bacterial body, protecting it. The action of alcoholic solutions of germicides is due in part to the power of the alcohol of dissolving these fatty bodies. In the use of germicides in tissues, these factors are of great importance. They explain many discrepancies between test tube results and wound results. A germicide of intrinsically low power may give good results in a wound, far better than a more powerful germicide, simply because its action is less hindered and disturbed by protein and fatty substances.

The future development in germicides must be along the line of functional poisons, comparable to hydrocyanic acid and chloroform, substances that kill primarily by the inhibition of an indispensable function. Such a germicide we might hope to be elective, not inimical to any of the functions of the host. The discovery must come through studies along metabolic lines. We are as yet almost entirely ignorant of bacterial metabolism. There is no reason why we should not have chemical anti-metabolants for bacteria as well as specific anti-toxines.

Insurance and the Nostrum Habit. Slowly but surely the best magazines are falling into line in their refusal to accept "patent medicine" advertisements of any kind. Not long ago one of the insurance companies made an excellent move by requiring its medical examiner to ask of each subject for insurance, "What patent medicines have you used during the last five years?" and gradually other insurance companies are realizing the fact that the use of patent medicines is even more injurious than the use of alcoholic liquors. But much still remains: more should be done. Public interest must be more widely aroused.—*Ladies' Home Journal.*

THE METHODS EMPLOYED IN THE ERADICATING OF AN INFECTIOUS DISEASE IN THE CHINESE QUARTER OF SAN FRANCISCO. *

By WM. C. HASSLER, M. D., San Francisco.

HISTORY: On March 6, 1900, the medical and commercial world of California were startled by the announcement that bubonic plague, that most dreaded of oriental diseases, had gained a foothold on our shore, and having a vague idea of its dangers and a still more hazy conception of the extent of the invasion, its progress and the ultimate results thereof, well justified the alarm felt by the Board of Health of San Francisco for the public safety and in the measures then adopted. Plague was known principally as that dread disease that during the seventeenth century depopulated the cities on the Mediterranean and carried off 10,000 in a single day in Constantinople, and was rampant in England and in the north of Europe, being also a scourge in China and northern India at this time. Plague did not make its appearance again to any extent until the occurrence of the epidemic in Hongkong in the year 1894. Literature on this subject, in consequence, was meagre in detail, as well as conflicting and misleading. Experts from various parts of the world had been studying the character of the disease in the Orient, but their conclusions were of little value. To Kitasato and Yersin is due the praise and glory for the discovery and isolation of the bi-polar bacillus of Pestis Major, and to Yersion and Haffkine for the preparation of a serum that was to be the curative and prophylactic agency respectively. So great was this feeling of alarm and the exigencies of the case so important in the minds of the Board of Health that for public safety and for the purpose of confining the danger to the district in which it had occurred, namely, Chinatown, it was deemed advisable to quarantine this section, which was accordingly done by the stretching of ropes across the various intersecting streets leading thereto and placing a cordon of police to guard the same. Thus was isolated twelve blocks of the most densely populated and filthiest section of San Francisco.

The original source of infection in San Francisco can at best be only a matter of conjecture or speculation as to the direct carrier responsible for its conveyance to this country and appearance in this city. Owing to the ignorance of the etiology of the disease important data which would aid in establishing this point were at the time overlooked. It had long been styled a "filth disease" and credited with appearing only among those living in and surrounded by the most unhygienic and unsanitary conditions. The rat was considered a carrier of the disease. In recent years this has been more definitely determined by research, experiment and observation to be a fact. Foodstuffs, clothing, merchandise, straw and other substances used as packing, as well as the baggage of Chinese and others arriving from the Orient, were all held in part responsible for its appearance here. The consensus of opinion of those having a most intimate knowledge of the course of the disease in San Francisco is that the rat was the most important factor; that it became infected in some oriental port and was carried by ship to this city, finding its way ashore, transmitting the infection to its fellow rodents, and owing, first, to the proximity of Chinatown to the City Front wharves, and second, to the direct and straight run of the street sewers from this section to the Bay shore, access to same being exceptionally easy, as well as being the true and natural highway of the rat, and, third, to the great amount of refuse, both animal and vegetable, for years collecting in the Chinese quarter, these conditions creating a rich feeding ground and also an ideal place for the further propagation of rats. How conclusive this is can only be appreciated by those who have worked in this quarter and noted the conditions existing in all of the various phases. The role the rat assumes as the carrier and causative factor would seem evident when we view the circumstances that surrounded the first case, a Chinaman living beneath the sidewalk in a mere burrow as it were, at the intersection of Jackson and Dupont streets, which was an extension of the cellar beneath the building known as the Globe Hotel. This space was lined with ordinary rough boards on three sides, the one end being partly closed by the cesspool at the junction of the two streets. In order to have more room, the ground beneath the street surface had been dug out, and a sleeping place arranged by the placing of a few boards over a portion of the side sewer from this cesspool to the main sewer in the street. In this lodging was an accumulation of all kinds of refuse, filth and debris, collected by the occupant, who had lived in this cellar for a number of years. There was a total lack of drainage connections throughout the whole of the building or hotel. This was discovered when the main cellar floor was torn out, and a pool thirty feet wide, sixty feet long and some two feet deep, the result of escaping sewerage caused by a break in the house sewer, was laid bare. This house sewer discharged into this pool instead of being connected to the street sewer, and that portion beyond the break extended through the area walls of the building to the main sewer in the street, being perfectly dry, formed a convenient opening for the entrance of rats. Later on and within half a block of this particular spot, while wrecking a building, eighty-two rats, dead and alive, were gathered, all of which were found to be infected with pest. All these circumstances point to more than a probable source of the mode of infection.

The Quarantine. The death of this patient was reported on March 6, 1900, whereon a meeting of the Board of Health was called, and after deliberation it was decided to quarantine Chinatown, which was done, as already referred to. No person was allowed to enter the quarantined section without a written permit from the health officer, nor were street cars whose lines passed through the district allowed to stop for the purpose of taking on or letting off passengers while en route. A fumigating station was improvised in Portsmouth Square, this being adjacent to the eastern border of Chinatown. All mail and other articles that were deemed necessary to pass out of the district were here disinfected. This quarantine was maintained until 4 p. m. of March 9th, when, no further cases having appeared, and all precautions, such as disinfection of the infected premises, burning of refuse, and filth removed therefrom, it was deemed advisable to raise the quarantine and maintain a daily inspection of the district by a corps of sanitary inspectors and Emergency Hospital physicians. Subsequently cases began to appear in other parts of Chinatown and all efforts to control the spread of the disease appearing futile, the State Board of Health on May 28th officially requested the San Francisco Board of Health to again quarantine this section, which was accordingly done and maintained until June 15, 1900.

Inspection. Owing to the natural antipathy of the Chinese race to any intrusion, as well as their ignorance and the inborn method of transacting personal and public matters by intimidation, bribery and suppression, the "White Devils" were accused of sinister if not ulterior motives. This all tended greatly to impede the work of inspection, and not until the cooperation of educated and influential Chinese, and members composing the Six Companies, was secured, could anything like inspection be properly made. Perhaps the individual inspectors detailed to this work were in part to blame for, as already stated, bubonic plague was an unknown quantity and highly respected for its supposed virulence, and no one was paid to take a chance, such was the general sentiment discreetly voiced. In this connection it

*Read before the California Public Health Association, Riverside, April, 1905.

may perhaps seem to border on the ridiculous when I state that various of these medical gentlemen, all of whom had graduated within the past ten years, protected themselves by wearing little bags containing camphor and asafetida, even after submitting to the prophylactic serum of Haffkine. Such conditions could not and did not long obtain; more light was being shed daily upon the situation. System and order arose to combat the danger. Instead of stalking from house to house with a burly policeman, who pounded upon the door, demanding admission, which, when delayed or refused, resulted in enforced entry by means of ax or sledge, thus admitting the doctor, who entered and peered into the faces of the startled inmates, searched by aid of electric candle or common lantern the dark spaces beneath bunks; making fruitless inquiry for any person who might be sick and walking out after leaving an order, which was seldom understood, to clean the room and whitewash, etc., by the aforementioned co-operation notices were sent in Chinese to every resident in the district to admit and assist the officers and inspectors in the examination of premises and to obey fully all commands given in regard to cleaning of same.

A mass of people numbering more than 10,000, confined within the narrow limits of twelve blocks, many of whom had extensive business interests, not only in Chinatown, but outside the same, as well as the horde on the verge of beggardom, gave forth a powerful cry for liberty and confronted the Board of Health with a demand for food for the indigents. This resulted in arrangements being made with Dr. Kinyoun, the Federal quarantine officer, to remove to Angel Island such as were found needy, and care for them there. During all of the period of the quarantine it was the desire of the Board of Health to immunize, with the Haffkine serum, all residents of the district. Voluntary submission was asked and to thoroughly explain the reasons and facilitate the work a number of interpreters were secured through the Six Companies, who, after witnessing the operation upon the inspectors, agreed to take the injection, perhaps stimulated with the added incentive of obtaining a job at $2 per day. Equipped with a policeman, interpreter, hypodermic syringe and a one-ounce bottle of Haffkine serum we again made the rounds. The interpreter explained and the prospective subject declaimed, and from the limited number inoculated I cannot but feel that the interpreter spent more time execrating the dose than extolling its virtue. Who knows? I for one did not understand the language, but I do know that the inoculation of the serum left for more than a week a very painful arm. A problem arose in the matter of allowing others than those engaged in sanitary work to enter or leave the district, such as gas and water inspectors, and meter men, postoffice employes, census marshals, and even residents whose business interests were out of the district, this was overcome by inoculating each with the serum, and enforcing individual disinfection at the headquarters opened for this purpose. On May 26, 1900, a restraining order was issued by the Federal Court against this demand of the Board of Health to immunize the Chinese in the district and also Chinese and Japanese coming into and going from this port, and thus the work in this direction ceased.

On or about the above date real inspection began to take form, a corps of plumbing inspectors were detailed to act with the sanitary corps, who were ordered to make a careful house to house inspection. Dirt, debris and garbage were ordered removed from the premises, careful note was made of defects in the plumbing and notice for the renovation of the premises was sent to the owner, who was forced to begin work at once.

A laboratory was opened by the Marine Hospital Service. A bacteriologist, medical and other inspectors detailed thereto, and the order of the local Board of Health made at the inception of the trouble, that the bodies of all Chinese and Japanese must be autopsied before burial, was here carefully carried out. These medical inspectors, acting in conjunction with like inspectors detailed by the State Board of Health, and working in harmony with the city board, began a systematic census taking, which eventually became so complete and perfect that the inspector on his daily round noted changes of residence, visitors from other parts of the State, or absence of member of the family. On return to headquarters inspectors compared and verified their notes.

Chinese laundries in various parts of the city, and vegetable gardens conducted by Chinese were kept under strict surveillance, owing to the fact that relatives attempted to secrete from the authorities their sick and dead. Steamships and sailing craft from outside ports, as well as local river craft, also passenger trains, were daily inspected for like reasons and for the added safeguard of preventing new cases getting into the State or city. Inspection was daily made of the residential portion of the city contiguous to Chinatown. Such was the inspection daily maintained during the period extending from March 6, 1900, to March 1, 1905. Crude in the beginning by reason of the lack of knowledge of the disease and proper manner of combating, the experience gained by observation of the necessities, all tended to bring about the evolution of that perfect system that marked the closing period of work by the joint boards. During the last year this inspection began to be looked upon with great favor by the Chinese, who had gradually been taught that filth, refuse, darkness and lack of ventilation were their real enemies, and if eliminated greater comfort and better health would be enjoyed. The universal courtesy of the inspectors, the solicitude and zeal displayed while making their rounds, and the positive refusal to be bribed or even tempted when approached, finally won the respect of the Chinamen, and from the aversion and menacing attitude first assumed they cheerfully opened the door each morning and ordered a seat for the doctor. Advice was sought, complaints were made and information volunteered, and a feeling of confidence maintained.

Quarantine and Fumigation. When a case was discovered a quarantine was placed upon the premises by stationing police officers at all points of entry and exit. This was maintained until the patient either recovered or died. Then the house would be treated in the following manner: The premises and all furniture therein were thoroughly fumigated with sulphur. Walls, ceilings and floors sprayed with 5% carbolic acid solution. The basement, cellar or area beneath the building, surrounding ground and woodwork were covered with chloride of lime. The premises remained thus for five days, when the infected rooms were opened and all clothing, furniture, interior decorations, paper from the walls and ceilings, if loose, were removed to the street and there incinerated. The premises were again sulphured and kept closed for another five days, during which time the owner was notified that before any further occupancy of the place could prevail all lath and plaster of the rooms and hallways must be removed, and the frames thus exposed must be whitewashed and then covered with new lath and plaster material. In no instance was exception made to this rule. If the owner failed to comply the premises remained vacated.

The dead were removed to the laboratory of the Marine Hospital and after an autopsy the body was sealed in a heavy zinc lined coffin; before sealing, the body was covered with unslacked lime. Burial took place immediately.

Sanitation of the District. This work was a separate feature and for convenience may be divided into three headings:

First. Removal of refuse, garbage and accumulated debris:

The disposal of the above in Chinatown had been

done in a manner most convenient to them, with no consideration for health or ultimate results that might accrue from its collection. "Out of sight out of mind" is a phrase that would apply aptly to the case. Pits were dug beneath wooden floors of cellars, covered with loose boards or a trap door, spaces between floors, especially in area ways, were the universal receptacles. Prior to the wrecking of additions to the original structures nearly all cooking was done in the wooden covered porches. The crevices and lightshaft between buildings were in many instances filled to the height of the top story. In this manner a large percentage of refuse was also disposed of, and only when the mass threatened to bury the tenants, or one faction was filling the space faster than his neighbor, was complaint made and the hiding place pointed out. From the above description you must not infer that the sanitary officers were negligent in allowing such a state of affairs to exist. Constant vigilance had been exercised and many arrests made among the offenders, but it was simply impossible to discover these conditions, owing to the construction of the buildings and the additions thereto. The occurrence of plague, however, led to rigid inspection for the purposes of controlling the situation and bettering the sanitation, which was made possible by the special corps detailed to the district. Owners and tenants were at once put to work to remove this debris, but the progress made was too slow, and the demand for prompt and energetic action so great that a force of laborers were employed to go from house to house in the entire district, tear up floors where necessary and carry the refuse to the street; from here it was removed to a vacant lot in the section and there incinerated. After thoroughly cleaning the district arrangements were made with the Six Companies, who now provide a number of scavenger wagons for the purpose of removing the garbage of the Chinese residents, thus bringing about a revolution of the former system.

Second. Flushing of streets and sewers and disinfection of premises, and killing of rats:

Almost from the inception of the disease men were detailed each day to flush and clean the main and tributary sewers located in this section. They also spread poisoned fish, prepared at the laboratory, in these sewers for the purpose of killing rats. During the height of the epidemic in 1901 a Kinyoun sulphur apparatus was employed to disinfect the sewers by forcing sulphur fumes into them. This was done by the stopping of all cesspool openings, tributary sewers and manhole covers in the block by tightly sealing them with clay and the sewer then filled with sulphur fumes under pressure. This had the twofold effect of acting as a disinfecting agent and killing many rats. After some months this was discontinued, other and better measures taking its place.

To destroy the rat has been our constant aim. At the present day, after fourteen months of immunity, every rodent caught alive or found dead is carefully autopsied, smears and cultures are made. We no longer poison this pest, for under the most careful handling phosphorus, arsenic and strychnine are dangerous agents. We now use Danysz virus, pure cultures of which are obtained, a pepton bouillon is inoculated and thickened with cornmeal, thus forming a tempting morsel for rats and mice, as well as a perfectly harmless mixture for man or the higher animals. The epizootic-like disease that results in rats and mice after eating of this mixture is very fatal. The advantage in the use of this is that it is perfectly clean, aside from being harmless. It can be placed on closet shelves and in other places in kitchens, where food is sought by the rodent. Under this subdivision I have included the disinfection of premises, which for two years past has been done as follows: The spreading of chloride of lime over all exposed surfaces in cellars, alleyways, areaways, toilets and on the floor of such houses where cases had occurred. This was alternated by spraying with a 5% solution of carbolic acid and a 1-500 solution of bichloride of mercury were interchanged. Latterly the bichloride was exclusively used, owing to the frequent complaint and objection to carbolic acid. These sprays were used principally to kill fleas and other vermin that find a natural breeding place in the cracks and crevices of floors and walls, and also for the purpose of cleanliness and disinfection. The streets of this district were swept three times a week and were sprinkled each day. All asphalt streets were hosed off each morning before flushing the sewers. During 1903, when the greatest number of cases occurred, the streets were sprinkled with a 1-500 bichloride each day.

Third. Delicate as is the plague organism it appeared to resist all measures, showing conclusively that the nidus had not been reached. To burn the district was impracticable and not warranted; experience had taught us that in those places having the most light and air we seldom found infection or rats. From this arose the idea of restoring the buildings to their original area walls by the tearing out of all wooden additions, balconies and other structures that excluded light and ventilation. Nothing was allowed to be reconstructed except a small balcony not over five feet square, and this only where it was found necessary to carry a toilet or urinal. The value of this course soon became manifest and led to the tearing out of all wooden floors in cellars and compelling the owner of the property to replace the same with artificial stone and cement. The problem seemed solved, as cases diminished from the outset of this procedure and as the work continued they ceased entirely.

Chinatown now has a solid stone floor over its entire area of twelve blocks. The areaways, lightwells and spaces between buildings are likewise free of all obstructions, in fact, the section has undergone such a change that it may be compared favorably with any district in the city and the only persons still complaining are the pests known as Chinatown guides, whose vocation is gone, there being no more underground dens with reeking filth and grimy denizens to squeeze a gullible tourist a $1 a head to view. Owing to the length of this paper I am unable to cover the conditions met while in charge of the work of wrecking the areaways and cellars, but I assure you that mere words, no matter how expressive, would fail to paint the picture. This was not accomplished without the expenditure of much labor and money on the part of the State, city and property owners. In the early part of the work the Citizens' Relief Committee raised $30,000 to assist the city authorities in the sanitary measures then outlined. I have estimated that more than $500,000 was spent by property owners in rehabilitating their premises. The city authorities expended, approximately, $45,000, aside from the amount spent by the State authorities.

Results. They were the eradication of the most virulent of diseases and a knowledge gained of the proper methods to apply. San Francisco has accomplished what no other city similarly infected ever did. Perhaps the class of structures the authorities had to deal with were responsible for the methods employed, as the chief object was not to wreck the buildings, but to exterminate the disease.

The Federal, State and city authorities who have had charge of this work can feel a just pride in the solution of a sanitary problem, accomplished by the removing of various impediments and surmounting of serious obstacles.

The vomiting of appendicitis is not a constant factor. It is of useful diagnostic value when present. The presence of general peritonitis is pretty surely indicated by a green vomitus, while in a less severe form of the disease the vomitus is of the ordinary contents of the stomach.—*Harvey, in Journal of the Medical Society of New Jersey.*

MEDICAL TREATMENT OF DISEASES OF THE GALL-BLADDER AND DUCTS.*

By A. H. MAYS, M. D., Sausalito.

ALTHOUGH the medical treatment of diseases of the bile passages has become somewhat restricted during the last few years, having given way to surgical treatment, the majority of cases can be greatly benefited by medical means, and many will completely recover. And if acute cases of gall-bladder and duct diseases were recognized early and proper medical treatment instituted, there would be less need of surgical intervention later on. Generally, little treatment is necessary to get rid of simple catarrhal jaundice. Since the affection originates in the duodenum and is kept up by the condition there, it is well to give some mild purgative, such as calomel and a saline. The food should be unirritating, readily digested and not subject to early fermentative changes. It should consist of lean meat, soup, and green vegetables. Rich, highly seasoned foods sweets and fats are to be avoided. Sodium phosphate should be given in sufficient quantity to keep the bowel movements quite watery, until the secretion of bile is re-established. Other drugs which increase the flow of the bile and render it less thick are sodium bicarbonate, ammonium chloride, taraxacum. Large colon irrigations of water at temperature of 80 to 90 degrees Fahrenheit are good and act by inducing active contraction of the gall-bladder, which expels the mucus blocking the common duct. Chronic catarrh, following the acute condition, should be treated along the same lines as the acute affection, by light diet and regular exercise and the free use of salines, the best being Carlsbad salts. Light massage may be employed if there is no history of gall-stones. In the event of pain being present, topical remedies in the shape of hot fomentations or the ingestion of a tumblerful of hot water, will probably be sufficient, but it may become necessary to occasionally employ a sedative, such as spiritus aetheris in aqua chloroform, repeated every half hour, or morphine may be necessary.

The pain in these cases is caused by the passage of a thick, ropy mucus along the inflamed ducts. Occasionally the mucus becomes much inspissated and gives rise, when passing, to pain resembling in almost all particulars that due to the passage of a gall-stone. Should the symptoms persist after treatment has been persevered in, and especially if jaundice be present, a surgeon should be consulted to determine what relief can be obtained by mechanical means.

The treatment of an attack of biliary colic should always commence with a hypodermic injection of morphine, which acts not only by relieving the pain, but also by relaxing the duct and thus decreasing the resistance to the passage of the stone. The doses should be repeated until relief is obtained. Chloroform by inhalation greatly aids the action of the morphine. Hot baths and hot applications over the region of the gall-bladder also assist the relaxation.

There is no substance which will dissolve gall-stones when taken by the mouth, but various drugs assist the passage of stones from the ducts. These may be divided into two classes. First, those which exert a sedative effect on the ducts, lessening muscular rigidity. They are the various cholagogues, the salicylates, acid nitro-hydrochloric, taraxacum, dioscorea villosa. Second, those drugs which exert an effect on the stone itself, and of these the most important is olive oil. This should be given in large doses, or in small doses frequently repeated. It acts by softening the calculus so that it can become moulded to the duct and pass easily. The explanation of its action is uncertain. It has been suggested that the good effect may be explicable on the supposition that an increased absorption of fat in the form of fatty acids leads to a greater proportion of those in the bile, and that they are the active ingredients in softening the calculus.

Chloroform, ether, turpentine and several other substances readily dissolve cholesterin, but they are not, when taken by the mouth, excreted in sufficient quantity to have any effect in dissolving calculi in the gall-bladder or ducts.

The fluid extract of dioscorea villosa has proved a very useful remedy, and acts by exerting a local sedative effect, lessening muscular rigidity. After gall-stones have passed into the bowel it is of service in reducing the congestion and inflammation which they have caused. But the object in the treatment of simple cholecystitis after the attack should be not with the object of causing the expulsion of calculi, as of reducing the inflammatory process going on in the gall-bladder. As the cholecystitis accompanying gall-stones is caused by bacterial infection from the intestine, every possible means should be instituted to disinfect the bile passages and to diminish the viscidity of the bile. The usual disinfectants of the bile are not of use, since they are not excreted by the bile in appreciable amount to have any effect on the bacteria contained in that fluid. Thymol and menthol would be excellent disinfectants for the bile since they are freely excreted by the liver, but they cannot be absorbed from the intestine in sufficient amount to be very active in the bile on account of their tonic properties. Sodium salicylate is the most practical and efficient, as it is freely excreted in the bile, and it has a powerful action in the bile in as low a solution as .1 per cent.

The diet and general hygiene are exceedingly important in the treatment of these cases. The diet should be regulated with the object of lessening the amount of cholesterin and of diluting the bile. All richly-cooked food should be avoided, sugars and fats and a large proportion of fresh vegetables and farinaceous foods substituted. Meat should be taken but once a day. Regular exercise should be employed, walking, cycling, horseback riding, etc., but too energetic exercise is contra-indicated when there is persistent pain over the gall-bladder, or a history of frequent attacks of colic. Massage should never be employed in the presence of gall-stones. Any gastric deficiency should receive appropriate treatment. In women tight lacing should be prevented, and the habit of sitting long in cramped positions which interfere with free hepatic circulation. Carlsbad salts should be freely used in these conditions, being given for its laxative effect and also for the purpose of diluting the bile. It is a mixture of sodium sulphate, potassium sulphate, sodium chloride and sodium bicarbonate. It is obtained in both the crystalline and the powdered form, the crystalline form being somewhat the more laxative, as it contains a much larger percentage of sodium sulphate than the powder. Carlsbad salts is to be given in a tumblerful of warm water on rising and no food should be taken for at least an hour afterward, to allow time for it to pass into the bowel. The chief question in the treatment of all these diseases is, when it is necessary to call in surgical aid. The great trouble has been that surgical measures have been so often postponed until the time is very unfavorable.

If, for example, we have a patient who has had several attacks of biliary colic, the time will come when symptoms will persist during the intervals. There will be slight pains over the hepatic region, a furred tongue, slight rise of temperature every day, 99 to 100 degrees. Such a history shows an infection of the gall-bladder and ducts, and if, after giving the medical treatment a fair trial, improvement does not follow, the patient is almost sure to have serious trouble unless the gall-bladder and ducts are drained by surgical means. If there be a family history of cancer, the necessity of operation is imperative, since the presence of gall-stones favors the development of cancer. It must be remembered, however, that the treatment does not end with the surgical operation, but that medical treatment is needed afterward to prevent the defective metabolism which gave rise originally to the cholelithiasis. The patient should, if

*Read at the 35th Annual Meeting of the State Society, Riverside, April, 1905.

possible, change his occupation from a sedentary to an active one. Regular exercise should be taken, horseback riding, cycling and golf being the best. He should follow the diet above outlined; drink quantities of water for the purpose of diluting the bile.

STITCH HOLE ABSCESS.

By J. HENRY BARBAT, M. D., San Francisco.

IT MIGHT seem superfluous to the average operator to bring up the matter of wound infection following clean operations with our present knowledge of surgical technic, but in reviewing the work of a number of our surgeons I have been surprised to find a large number of so-called "stitch-hole abscesses" following "clean" operations. It is customary in the majority of cases to lay the blame on the suture materials or the operating-room nurse, or anything which will tend to shield the operator himself from odium of this almost unnecessary accident.

The records of men of large operative experience show not more than 1% or 2% of superficial infections following clean operations, and in the majority of cases these can be traced to some inherent condition of the patient, usually reduced resistance due to the disease or loss of blood. Why then do so many men have stitch-hole abscesses in a large proportion of their operative cases? The answer is easy.

Let us first glance over the various possible means of infection outside of the operator and his assistants. The field of operation. The operating room. Dressings and sponges. Instruments. Ligatures and sutures.

It is a well recognized fact that it is practically impossible to obtain a field of operation which is free from germs, and even with the most rigid antiseptic technic the *staphylococcus epidermidis albus* is found in the deep layers of the skin, usually at the bottom of the hair follicles. Naturally the number of germs over any given area will vary to a great extent with the method adopted in cleaning the skin before operating, but it can be shown that the presence of a few normal inhabitants of the skin rarely gives rise to stitch-hole abscess unless assisted by some error in operative technic.

Numerous tests have been made to determine the presence and number of germs in the air of operating rooms, and it has been shown that bacteria are found in the air of all operating rooms within a short time after the doors and windows have been opened, following disinfection; and the number depends largely on the number and cleanliness of the persons entering the room. The air nearest the floor contains the largest number of germs on account of the dust carried in on the shoes and kept in circulation by the motion of the feet. Near the ceiling the air is comparatively free from germs. Operating rooms which are situated near the ground floor contain many more bacteria than those which are considerably elevated. The furniture of any modern well-kept operating room will be found free from germs previous to any operation, and there should be no likelihood of infection from that source.

All dressings and sponges are necessarily sterile after having been submitted for 30 minutes to a moist heat of 250° Fahrenheit.

The instruments are boiled and therefore sterile.

Suture and ligature materials have always come in for the largest share of blame for infections because the operator has often been able to remove a suture or ligature several days after the operation, which could be shown to contain some form of pus producing bacterium, and was forthwith declared to be the cause of the disaster. As a matter of fact I have never seen a piece of prepared suture or ligature material which was removed from its original package under proper precautions, that would give one colony on glycerine agar or blood serum; aërobes or anerobes. These tests have been made hundreds of times in the various hospitals with which I have been connected during the past 12 years. We must therefore look to something besides the operating room and its appurtenances as a cause of stitch-hole abscess.

Operating room nurses, properly trained, properly gowned, wearing correct head-gear and rubber gloves, cannot be considered as sources of infection as they do not come in contact with the wound unless acting as assistants, and they should then wear face masks. The greatest danger from the nurse is in the conveyance of instruments, ligatures and sponges to the operator or assistants. I have seen ligatures and sutures trailed over the shoulder of the operator who had a few minutes previously wiped his nose or chin on his gown at the identical spot touched by the ligature.

We now come to the operator himself and his assistants. From actual observation less than half the men who operate have acquired the habit of aseptic technic. Let the slightest thing go amiss during the course of the operation and asepsis is forgotten, materials are handled which are not sterile and the soiled hands plunged into the wound without a thought of the consequences. These gentlemen invariably blame everybody but themselves if infection supervenes. I have seen operators with large reputations wash their hands carefully, and while waiting for the patient, adjust their glasses, wipe their noses on the operating gown, and actually in one case place the finger in the ear.

The modern surgeon will tell me that these men are not to be classed as surgeons and should not operate, but unfortunately they do, and their results are just what we would expect; yet they have reputations as surgeons among the laity. How unjust it is for the operator to blame a ligature for producing a stitch-hole abscess when he has allowed the perspiration from his forehead or nose to drop into the wound, or has blown particles of germ laden saliva on the field of operation, or has dropped a few hairs from his head or face into the adominal cavity.

I have seen these things happen without the slightest attention being paid to them. I have repeatedly seen a pair of scissors with which an infected appendix has been cut, dropped among the other instruments and subsequently used to cut ligatures with. Must we not expect infection of our wounds if a gangrenous appendix is dragged through without proper protection? These errors of technic and many others I regret to say are being constantly committed by men who cut for disease and incidentally for money, and whose results are anything but elegant. In hospitals where men of this type habitually operate, all the attendants become careless and it is unusual to have wounds heal by first intention.

The assistant, unless he has been thoroughly trained and constantly employed, becomes careless and forgetful of his asepsis and jeopardizes the results of the most careful surgeon. Naturally, anyone who has the misfortune to assist regularly any chief who is not thoroughly clean in his work, will acquire the same bad habits as the one whom he assists, and is a dangerous person to have around during an operation. Assistants frequently become careless of their asepsis, when during the course of an operation their active service is not required for a few minutes, as during the separation of adhesions by the operator or when waiting to apply a ligature; and I have frequently seen a catgut ligature repeatedly drawn between the partially cleaned fingers of the assistant previous to its application.

How often do we see assistants using a sponge which has already been touched to an infected area, thereby spreading, instead of removing the infectious materials. What is the remedy for this state of affairs? First, of course, students must be properly taught, and in these days when surgery is done by the majority of practitioners, especial stress should be laid on the tremendous responsibilities which are

assumed by every individual who takes up the scalpel as a means of livelihood.

I regret to say that some of the gentlemen whose asepsis in the operating room has been open to serious criticism, have been recent graduates whose teaching, I am positive, has been forgotten or never understood. Recent graduates of recognized medical colleges should have, theoretically, an almost perfect aseptic technic. Any individual who has had the advantages of a course in a modern bacteriological laboratory cannot but appreciate the serious results which are liable to follow the slightest error in asepsis. Why is it, then, that these recent graduates forget their teaching? Simply from lack of having acquired the "aseptic habit." Unless a person be in constant touch with operating room work, he is liable to become careless and endanger the lives of patients who have the misfortune to be operated upon with his assistance.

No individual should attempt to operate who does not keep in constant training, either as an operator or an assistant, because his results will be bad, and he will bring legitimate surgery into disrepute.

Stitch-hole abscesses are usually caused by the poor technic of the operator or his assistants.

EXTRA-UTERINE PREGNANCY.*

By R. A. WHIFFEN, M. D., San Jose.

MY INCENTIVE to bring the subject of extra-uterine pregnancy before the society for discussion was originally a difference of opinion between Dr. Howard Gates and myself in regard to a patient on whom we operated at the County Infirmary.

Since I have had the pleasure of assisting Dr. Gates at an operation upon a case of tubal pregnancy at the San Jose Sanitarium, a description of which I will give you.

Extra-uterine pregnancy dates back in surgical history to the eleventh century in all probability, and from that time down to the present cases have been reported at intervals of from two hundred years to a few days.

What interests us more than history is the present knowledge of this development of the fertilized ovum outside of the uterine cavity, and of this knowledge I shall make as brief a statement as possible.

Many theories are advanced as to the cause of this condition, the most feasible ones being: polypi in the Fallopian tube; atresia of one tube with external migration of the fertilized ovum or the spermatozoa from the opposite side; persistence of a foetal type of uterine tube; diverticula from the lumen of the tube; torsion of the tube; catarrhal and purulent salpingitis; myoma of the uterus or in the tubal walls; peritoneal bands and adhesions compressing the tube; cervico-abdominal fistula after hysterectomy; any one of which may be a cause in some particular case.

With these various causes it can readily be understood that the ovum may develop in a number of locations as the following classification will show: First, ovarian pregnancy, divided into internal when the ovum remains in the Graffian follicle and external when the ovum develops partly in the follicle and partly in the peritoneal cavity. Edgar states that this occurs in 4.8 per cent of all cases, while other authors—Williams, for instance—consider that it occurs less frequently. Second, abdominal or peritoneal pregnancy, divided into primary, in which the ovum falls into Douglas cul-de-sac and stays fixed there from the beginning; secondary, when the ovum begins its growth in the tube or ovary and by aborting from the tube or rupture of the tube or ovarian sac, the placenta still being retained in position wholly or partially, finally falls into the peritoneal cavity, where it continues its growth. Edgar states that this form occurs in 8.5 per cent of all cases. Other authors dispute the existence of a primary abdominal pregnancy, claiming that all abdominal cases can be proved to be secondary. Third, tubal pregnancy, divided into tubo-abdominal, in which the ovum increases partly in the tube and partly in the abdominal cavity; tubo-ovarian, in which the ovum is between the fimbriated end of the tube and the ovary; tubal pregnancy proper, in which the ovum is fixed about the middle of the tube; interstitial tubal pregnancy, in which the ovum is developed in that part of the tube which is connected with the uterine wall. This third class is by far the most common form, and Edgar states occurs in 86.7 per cent of all cases.

A little thought regarding the above classification, taking into consideration the anatomy of the parts involved, will be explanatory in itself.

We are most interested in the complications which arise, as they are really what do the damage to the patient.

The most important complications are a rupture of the tube from which the foetus may be expelled into the abdominal cavity, and if the placenta is still retained in its original site the foetus may continue to develop. The same thing may practically occur by the end of the tube being forced open and the foetus expelled, this latter being called tubal abortion. There might not be much hemorrhage in the above-mentioned condition, but the shock would be great. If, however, the placenta loosens partly or wholly (which is most apt to occur), there would be severe hemorrhage and in all probability collapse and possibly death of the woman in a very short time. If the woman does not die and an operation is performed at this time, the chances of recovery may be very good, but if nothing is done and the woman lives we will have an accumulation of clotted blood in the pelvis or between the layers of the broad ligament, forming a hematocele which may partly absorb, but there is always the possibility of infection in such a case, especially if the hematocele is in contact with the bowels, and then the dangers of pelvic abscess would be added.

Another condition that might develop is that the fetus and blood clots or the sac containing the foetus and placenta might be walled off in the abdominal cavity in contact with the bowels and by pressure on the bowels cause a necrosis at some point and rupture into the bowel, thereby creating another condition that is apt to prove fatal on account of hemorrhage into the bowel.

Very rarely the rupture of one of these pregnancies has been through the abdominal wall or into the bladder.

The one form of rupture of an extra-uterine pregnancy that does not cause trouble is the interstitial tubal pregnancy when it ruptures into the uterus.

The worst complication, in all probability, as far as the surgeon is concerned, is to be found when the growth has continued for several months before coming to operation and a great many adhesions have formed involving the bowels in the general mass, so that its removal is almost impossible on account of hemorrhage from large adherent surfaces.

In cases that have lived and never come to operation and in some that have gone to full term the records show that some of the foeti have become lithopoedians, remaining in the abdomen as long as fifty-five years; others have become encysted, and still others have formed abscesses which have been drained and the patients seemed to get along all right; still the dangers and suffering that attend such cases are uncalled for and should be avoided. It is only in the last twenty to twenty-five years that these cases have been treated surgically and in that time the mortality has been cut down enormously, so that at the present day treatment, such as electricity or the injection of poisonous fluids, to kill the foetus should absolutely be a thing of the past, and the surgeon called upon to operate as soon as a diagnosis is made. It is seldom that a diagnosis is made until the patient is in a bad state, as the woman herself does not realize her serious condition, and if she has

*Read before the Santa Clara County Medical Society, July 19, 1905.

had a physician he is not often looking for such trouble, as the symptoms before a rupture of the tube or sac occurs are not serious enough to make him suspect the nature of her trouble.

The symptoms on which to make an early diagnosis are at times rather indefinite. The woman may have all the symptoms of a normal pregnancy at first—vomiting, suppression of menses, change in breasts, increase in size of abdomen; added to this, dizziness or faintness. After the first six to eight weeks she is apt to have a bloody discharge or a decided hemorrhage from the uterus, due in some cases to the loosening of a decidual membrane which has formed in the uterus. This membrane may be thrown off in pieces and cause irregular hemorrhages or there may be a discharge stained with blood which the woman will consider irregular menstruation. As the growth increases in size there will be sharp pains in the side on which the growth occurs. If a bi-manual examination of the pelvis be made at this time an enlarged tube or ovary may be outlined or only a boggy mass at the side of the uterus or in the posterior cul-de-sac, the uterus itself being enlarged and the arteries in the pelvis pulsating strongly. If at this time pieces of decidual membrane can be demonstrated in the discharge from the uterus, an absolute diagnosis can be made.

If the patient goes on until rupture of the tube or sac and has symptoms of intra-abdominal hemorrhage, this, coupled with irregular flowing, severe pain in one side and perhaps the palpation of a mass of some kind in the pelvis, ought to lead to a diagnosis.

Cases have occurred, though very rarely, where there was a suppression of menses and no hemorrhage, but with the other symptoms present there should be no doubt of the diagnosis. The treatment of these cases should always be surgical, and if operated upon early an abdominal operation should be done and the entire mass removed; in fact, the abdominal operation will be the one of choice in most cases. There may be cases where a large mass bulges down into the vagina and an opening there, with removal of as much as possible of the mass would be advisable, packing the cavity to prevent hemorrhage and waiting for the mass to be gradually expelled through the opening or absorbed, but in this way it takes much longer for the patient to recover.

It may be necessary sometimes when doing an abdominal operation, if it is impossible to remove everything, especially the placenta, on account of hemorrhage, to pack through the abdominal opening and wait for the gradual separation of the placenta.

The first case I will report is that of Mrs. N., a French woman, 33 years of age, strong and healthy, except for a complete tear of the perineum and a prolapse of the uterus. She is the mother of eight children, one of these children dying at two years of age. At one birth a craniotomy was performed in order to deliver her. I waited upon her at her last confinement, on March 16, 1904, which was a normal birth. She has had one miscarriage, the first time she was pregnant. Since her last childbirth I examined her two times up to three months ago to determine what could be done with the prolapsed uterus. At these examinations I found nothing wrong with the ovaries or fallopian tubes. She nursed her last baby, but flowed irregularly during the nursing period. About three months ago she began to flow more often than she had before and from that time until within two weeks of the time she was operated upon flowed on an average of every two weeks, and the last two weeks she flowed most of the time. The flow at times being light colored and again she would have severe hemorrhages; she also complained of sharp pains in her left side and at times had regular contractions of the uterus, as she expressed it, like labor pains, flowing severely while the pains continued.

I examined her three times during the last two weeks, the first two times finding the uterus enlarged and made up my mind she was pregnant and was going to have a miscarriage, but the last time I examined her she was flowing severely and I could feel a boggy mass at the left and behind the enlarged uterus, the blood vessels in the pelvis pulsating strongly, and I decided it was a case of extra-uterine pregnancy. I then called in Dr. W. K. Davis to examine her, and he confirmed my diagnosis. She was taken to the Infirmary that night and Dr. Howard Gates and I operated upon her the next morning. We found an encysted mass behind and to the left of the uterus, somewhat adherent, but the adhesions were easily broken and the mass raised. We found it involved the ovary of the left side, the tube being perfectly normal. We removed the mass and upon opening it found the sac filled with clotted blood. The sac was perfectly smooth inside for about three-quarters of its surface, the other one-quarter having the clotted blood adherent to it. This sac was about 2½ inches in diameter. Dr. Gates curretted the uterus, but found nothing.

Dr. Gates is of the opinion that it was not an ovarian pregnancy, while I think it may possibly have been, as the growth corresponds in many ways with the requirements of Spiegelberg, who, to prove that condition, lays down these rules: First, the tumor must correspond to the situation of the ovary. Second, it must be connected to the uterus by the ovarian ligament. Third, the tube must be proved intact. Fourth, ovarian tissue must be found in the mass of the sac.

All except the fourth condition were proven, but unfortunately the specimen was thrown out and we were unable to prove the fourth. It seems to me, with all the symptoms of an extra-uterine pregnancy except the proof of ovarian tissue in the wall of the sac, that I am warranted in making my diagnosis of a probable extra-uterine ovarian pregnancy.

Through the kindness of Dr. Gates I am able to report a case about which there is no question.

This patient was first seen by Dr. Gates on June 29th. She was a well developed woman, strong and healthy in every way, 38 years of age and the mother of one child. She had a miscarriage two years ago, at which time she was curretted.

When first seen she was having a few cramps and flowing a little. She had missed one menstrual period. Bi-manual examination showed no enlargement of the uterus and no growth was determined at the side of the uterus. A little medicine relieved her of the cramps, and when Dr. Gates left town four days afterward she was feeling all right. While he was away the cramps and flowing returned and another physician was called in, who did not make a diagnosis. On July 13th Dr. Gates was called again and found the woman in a state of collapse, having severe cramps and almost exsanguinated from loss of blood; he made a vaginal examination and found a large boggy mass in the pelvis, making his diagnosis at once of ruptured extra uterine pregnancy, with intra-abdominal hemorrhage. The woman was moved at once to the San Jose Sanitarium and operated upon within an hour. On opening down upon the peritoneum the blood in the abdominal cavity showed dark through it and when the peritoneum was incised the blood spurted out all over the abdomen. The doctor removed a large amount of clots and free blood from the abdomen, then elevated the tube, which was quite large and showed that a tubal abortion had taken place. The abdomen was freed from blood as much as possible and washed out with normal saline solution; the tube was then removed, leaving the ovary which was not damaged, and the abdomen closed. A saline infusion was given the patient and such other stimulants as were deemed necessary; she rallied nicely and seemed to do well until the night of the 15th, when she suddenly grew worse and died on the 16th.

This specimen I have described is the tube with the fimbriated extremity filled with blood clots, and is the point from which all the hemorrhage took place.

The Mission and Function of the Local Medical Journal.

Where there are a number of rival medical journals in the same State, it is the duty of each physician to ascertain the best one, usually an easy task, and give that one his earnest support. In return for this support what does the medical journal owe to its subscribers? It owes them the prompt publication of all medical society reports and notices whenever such are furnished in proper season by the secretaries of these societies; and here let me say, in passing, that these societies should insist upon their secretaries sending reports of their meetings, regularly.—Burnside Foster, M. D., *St. Paul Medical Journal.*

ALCOHOL IN "PATENT MEDICINES."

The following percentages of alcohol in the "patent medicines" named are given by the Massachusetts State Board Analyst in the published document No. 34:

	Per cent. of alcohol (by volume)
Lydia Pinkham's Vegetable Compound	20.6
Paine's Celery Compound	21
Dr. Williams's Vegetable Jaundice Bitters	18.5
Whiskol, "a non-intoxicating stimulant"	28 2
Colden's Liquid Beef Tonic, "recommended for treatment of alcohol habit,"	26.5
Ayer's Sarsaparilla	26.2
Thayer's Compound Extract of Sarsaparilla	21 5
Hood's Sarsaparilla	18.8
Allen's Sarsaparilla	13.5
Dana's Sarsaparilla	13.5
Brown's Sarsaparilla	13.5
Peruna	28.5
Vinol, Wine of Cod-Liver Oil	18.8
Dr. Peters's Kuriko	14
Carter's Physical Extract	22
Hocker's Wigwam Tonic	20.7
Hoofland's German Tonic	29.3
Howe's Arabian Tonic, "not a rum drink"	13.2
Jackson's Golden Seal Tonic	19.6
Mensman's Peptonized Beef Tonic	16.5
Parker's Tonic, "purely vegetable"	41.6
Schneck's Seaweed Tonic "entirely harmless"	19.5
Baxter's Mandrake Bitters	16.5
Boker's Stomach Bitters	42.6
Burdock Blood Bitters	25.2
Greene's Nervura	17.2
Hartshorn's Bitters	22.2
Hoofland's German Bitters, "entirely vegetable"	25.6
Hop Bitters	12
Hostetter's Stomach Bitters	44.3
Kaufman's Sulphur Bitters, "contains no alcohol" (as a matter of fact it contains 20.5 per cent of alcohol, and no sulphur)	20.5
Puritana	22
Richardson's Concentrated Sherry Wine Bitters	47.5
Warner's Safe Tonic Bitters	35.7
Warren's Bilious Bitters	21.5
Faith Whitcomb's Nerve Bitters	20.3

In connection with this list, think of beer, which contains only from two to five per cent of alcohol, while some of these "bitters" contain ten times as much, making them stronger than whisky, far stronger than sherry or port, with claret and champagne way behind.

☞ *Duplicates of this slip may be obtained upon application to the Publication Office of the Medical Society of the State of California, Room 1, Y. M. C. A. Building, San Francisco.*

Congratulations to Missouri.

From the October number of the *Journal Missouri State Medical Association* we take the following extract, and beg to congratulate the Council upon its decision and wish it strength to carry it out. That its advertising pages have been adorned with some things that should not be there, is beyond doubt; that they will shortly disappear, now seems probable.

"At a recent meeting of the Executive Committee of the Judicial Council, the members were disposed to criticise harshly some advertisements of proprietary remedies carried by the *Journal*, and decided to discontinue all those where the formula was not known or where claims not founded on fact were made. The correctness of the decision of the committee is beyond question. While it may be considered within the province of a medical journal to bring to the attention of its readers, through its advertising columns such preparations as are meritorious, no article should be advertised unless the chemical formula be given, or in the case of a pharmaceutical compound unless the name and proportion of each active ingredient appear. That many advertisements may be lost is quite probable, but the time has arrived when a firm stand should be taken, not only by the *Journal of the American Medical Association* and State journals, but by all reputable medical journals."

We heartily commend this to the careful attention of the officers of the State medical organizations of **Michigan, New York, Illinois, Nebraska, Maryland, Wisconsin, Oklahoma,** and **Kansas.**

Objectionable Advertising.

C. S. N. Hallberg, Chicago, H. W. Wiley, Washington, D. C., and H. C. Wood, Jr., Philadelphia, give accounts of cases illustrating fraudulent claims of patent medicines, complexion powders, etc., and notice certain rulings of the Postoffice Department and of the law officers of the government. For a time the Postoffice Department prohibited the sending of poisons through the mail. Influence has been brought to bear, however, and the ruling was changed so that it is possible to send any poison through the mail, provided it carries the label or superscription of the manufacturer or dealer. The authors call the attention of the department to the fact that in almost every state poisonous remedies must be marked with poison labels indicating their dangerous character, and it would be well for the Postoffice Department to follow their example. The ruling of the Department of Justice in regard to the withdrawal of mail privileges is rather loose, and many fraudulent medical concerns are working under it with impunity. The difficulty of obtaining legislation to mend the matter is chiefly in the fact that many of the senators and representatives are themselves the dupes of these concerns, believing that they really have some virtue.—*Journal A. M. A.*, September 16th.

Well-Deserved Honor.

Dr. T. D. Crothers of Hartford, Conn., superintendent of the Walnut Lodge Hospital, has accepted an invitation to deliver the first oration in the Norman Keer memorial lectureship, at London, England, October 10, 1905. Dr. Keer will be remembered as an eminent London physician who made a special study of inebriety, alcoholism and other drug disorders. He wrote several excellent books on this subject, and was instrumental in securing the enactment of laws for the control of inebriates, and the promotion of hospitals for their care throughout Great Britain. He founded the British Society for the Study of Inebriety, in 1884, and this society and his friends have organized a memorial lectureship for yearly orations on his life and work. It is a very pleasant recognition of the progress of medical science in this country that an American physician should be invited to deliver the first lecture.

Secret Remedies.

Practically the entire controversy really rages about the remedy of unknown composition, and all attempts to prove inconsistency cannot disprove the propositions that the man who prescribes a remedy of composition unknown to him endangers his patient by subjecting him to (1) the possible administration of some component drug perilous to him in his present condition, and one which the physician would not administer, if he were aware of it, in that particular case; (2) the administration of some component drug in a quantity that a proper knowledge of the facts would preclude in the case in point; (3) the possibility of a dosing with something to which idiosyncrasy renders him especially susceptible, with the danger that not knowing the cause of the consequent serious symptoms the physician may commit the fatal error of judgment, of pushing the remedy instead of discontinuing it, and finally (4) the possible administration of a drug which, viewed even as a "clinical entity," may not be the same to-day as it was a little time ago. Such cases of materially "amended formulæ" have happened.—*St. Louis Medical Review.*

UTERINE FIBROIDS COMPLICATING LABOR.*

By F. R. HOREL, M. D., Arcata.

THIS subject, that of uterine fibroids complicating labor, has not been chosen on account of any special knowledge of my own in the management of these most difficult and dangerous cases, but to call your attention to the fact that we know not the day nor the hour when we may be called upon to face a furious, if not a fatal hemorrhage, or, overcoming this, that we may not loose our patient from sepsis, to the end that we may, should such a complication come to us, be prepared to do the best possible for our patient.

I had been in obstetric practice nearly nineteen years, had treated many fibroids of the uterus, but these two are the only ones complicating pregnancy:

Case No. 1. February 7, 1904, I was called at night to see a lady about 27 years old who had always been strong and healthy, the mother of three children, the youngest three weeks old. Labor said to have been normal in every way. Got up the 10th or 11th day feeling well and had gained in strength up to the 20th day, when, without pain or warning of any kind a hemorrhage started, but grew less when in a recumbent position. She felt well and looked well, except being a little pale. On examining I found what I thought to be a uterine fibroid, presenting at the os, very little hemorrhage, so I gave ergot and advised letting matters rest till morning. In the morning, with the assistance of two nurses and patient under anesthetic I operated. Situated in the posterior wall of the uterus, just above the internal os, I found a fibroid the size of a small orange. The capsule had ruptured so it was easy to grasp the tumor with vulsellum forceps. Then began the process of enucleation, which, after some difficulty, was accomplished and the tumor delivered. There was very little hemorrhage. Patient had an uninterrupted recovery and has remained well ever since.

Case No. 2. A well nourished girl of 19 years, family history good, married ten to twelve months. I saw her for the first time since marriage April 11, 1904. Found her in labor, os dilating, breach presentation, two or three weeks short of term. After a wait of some 10 hours, os well dilated, progress slow, under a partial anesthetic, I introduced the hand and changed to footling. The head not coming through readily I applied short forceps and delivered. Placenta expressed under contraction, examined carefully and found to be perfect. No hemorrhage.

Everything went well until the 10th day, when the temperature began to creep up and pulse to quicken, temperature reaching 100°F. Gave small doses of calomel, followed by sol. of mag. citrate. Still the temperature did not go down. Then to my surprise the flow began to increase, changing from dark to bright red. Patient became restless, complaining of backache and severe headache. The 11th day after labor conditions were not improved, temperature 101°, pulse ranging from 100 to 115 and weak; head still aching. No odor to lochia. Contractions weak. Gave ergot and strychnia. The next day, April 23d, twelve days after labor, conditions unchanged. I used a dull curette and flushed uterus out with sterile water. Hemorrhage checked, temperature dropped to 99°, pulse to 100. But the evening of the 24th the 13th day, and about 30 hours after curettement, hemorrhage started up with a gush. On examination found a hard mass just above internal os. Hasty preparation was made and I grasped with forceps and enucleated a fibroid about the size of a small hen's egg. Capsule had ruptured and it turned out quite easily from its bed, which was in posterior wall, just above internal os.

I again washed out uterus and applied iodin and carbolic acid to capsule and beyond. Hemorrhage ceased, temperature began to decline, but patient was very anemic from loss of blood. Digestion bad, pulse weak, but responded fairly well to strychnia. Dr. Charles Mills of Arcata was then called in consultation and again on the evening of the 26th, two days after the operation, Drs. H. Gross, Sinclair and Mills kindly saw the patient with me in consultation.

Shortly after this the nurse, in giving the normal salt enemas to stimulate the patient, found evidences of impaction, although the nurse had reported the bowels moving every day, they had not been moving enough. This would account for the temperature not going down to normal or below, after the operation, and would also account for the digestive disturbances which kept up until the bowel trouble had been cleared up. She made a rather slow, but good recovery.

I wish to dwell particularly on case No. 2. I do not believe that we should curette every time we are in doubt, on the other hand, I think sometimes we should study what not to do. Had I known of that fibroid I would not have put a curette into the uterus, although it was dull and manipulated very gently. There had been absolutely no symptoms to cause me to suspect its existence, except hemorrhage, and that we get from other causes.

Being small and situated so close to the posterior, uterus relaxed and os patulous, the curette which was a douche combined, slipped in and out with the cause of the trouble still in doubt.

Most writers tell us we should examine and locate these tumors early, note their exact size and location, then should they occupy a position which will be likely to give rise to trouble during labor, myomectomy or hysterectomy should be performed to avoid such complications.

But in cases where the patient has not been seen before labor begins, or where there have been no symptoms before hand causing us to suspect trouble, what are we going to do?

In a paper presented before the County Society of New York, Dr. Marx says:

With few exceptions fibroid tumor of the uterus should at all times, if possible, be treated, or such treatment instituted before the advent of pregnancy. Their association with pregnancy forms a complication which in many patients must be looked upon, not as a benign, but as a malignant state. With hardly another complication in the entire domain of obstetrics are we surrounded with such a mist of doubt as with this one, nor can we ever certify before with what we may meet, immediate or remote. No matter how small or insignificant the tumor may be in the non-pregnant state, no living being can tell, no matter what the location of the tumor, what we may expect during labor; again, that we may not be confronted with an impossible labor, a fatal hemorrhage; or, overcoming these, that our patient may not die of sepsis due to the sloughing of the tumor; or if, then, it may not end with what the pregnancy should have been anticipated by—a hysterectomy. But nature is kind to the poor women with fibroid uteri, for many of them are incapable of conception. Again, should there be found a "fibroid uterus" in any woman who presents herself for such symptoms as would warrant a pelvic examination I would unhesitatingly advise a hysterectomy, except in those few cases where a simple myomectomy could be done, or where there is a vital indication against such a radical measure.

A diagnosis of pregnancy with a safe fibroid tumor as a complication, i. e., one situated at the fundus, is often exceedingly difficult. * * *

Experience teaches us that trouble is to be expected during the third stage of labor and during puerperium. These dangers can be summed up in two words—hemorrhage and sloughing. Fibroids during and after labor must be handled gently and with care, avoiding as much as possible any traumatic insult. The occurrence of adherent placenta due to the concomitant endometritis that goes so often with fibroids is the first complication that may confront us. Forcibly digging away such an afterbirth invites lesions of the tumor capsule proper, and the danger of cutting off its nourishment becomes evident. Where great difficulty is experienced in the enucleation of an adherent placenta under the conditions I would rather be inclined to tightly pack such an organ with gauze, with the placenta in situ, and thus await its natural exit (in perhaps 24 hours) than invite sepsis and sloughing by the extra hazardous and the forcible means of digging out this placenta. Yet, in one case, a total hysterectomy was forced upon me in order to deliver an adherent placenta in a badly diseased fibroid uterus, the attempt to deliver by the vaginal route having utterly failed. The treatment of hemorrhage, so often present, is one of relative simplicity, and this by means of the firm intrauterine pack, applied by the gentlest method possible, in order to avoid traumatism, which is always the greatest and most potent factor in inviting sloughing of the tumor by causing a lesion of its capsule. It is a very common experience of the writer in cases seen in consultation that these fibroids have been acting harmlessly until after the curette had been used for the removal of the supposed secundines. So often has this been my experience that I would sound a note of warning that the use of the curette in a fibroid uterus recently pregnant or even in a non-pregnant condition, is one fraught with the greatest danger. Its use, in many cases, is absolutely not indicated, but your experience will probably be similar to mine: that just as soon as a puerperal woman has a rise of temperature her physician at once, without much forethought, thinks first, last and all time of the curette. To the average mind fever at this time means sepsis from retained products of conception. The poor uterus stands the brunt of the attack, even though the condition is due to an entirely different cause. The curette has no place in the fibroid uterus, whether puerperal or not. When we are sure, and this can best be certified to by the hand,

*Read at the annual meeting of the Humboldt County Medical Society March 14, 1905.

that the temperature is due to a sapremia sepsis such products in the uterus can and must be removed by the hand; and the curette, under no condition, should ever be employed.

But usually temperature and pulse rise in a fibroid puerperal uterus are due to beginning necrotic changes in the tumor. If we are in doubt we can surely wait for symptoms indicative of these changes. The low temperature, the rapid pulse and the decided local pain in the uterus, with or without the fetid lochia, all make too evident what the lesion is. Intramuscular and submucous fibroids are those that give the best prognosis and the readiest means of extirpation. Examination of the interior of the uterus shows the lacerated capsule and the point of cleavage for a simple enucleation of the tumor. Treatment along simple aseptic lines and attempting to do too little rather than too much, is the best means of overcoming this complication. Sub-peritoneal sloughing fibroids are far more difficult to attack and consequently make the prognosis worse.

To make my position clear as to fibroids complicating pregnancy, I submit the following resume:

1. Prophylaxis. Every fibroid during the childbearing period, with few exceptions, should be attacked by surgical means.

2. During pregnancy. Safe fibroids, i. e., those beyond the dilating zone of the uterus, should be carefully watched. Every complication during pregnancy depending upon the fibroid should warrant our attacking surgically the condition, or, at least provoke us to the indication for emptying the uterus.

3. During labor. Again, safe tumors need watching. The resultant complications must be met energetically, but gently, as they arise, i. e., hemorrhage, tardy labor.

4. Sloughing and necrosis of a puerperal fibroid must not be mistaken for retained secundines. This doubt must be eliminated by exploration with the clean aseptic hand. Retained secundines are always to be removed manually, and under no condition must the curette be employed, because of the great danger of laceration of the capsule, and consequent sepsis.

5. Sloughing and necrotic fibroids are always to be attacked surgically, either by enucleation or by a hysterectomy.

COUNTY SOCIETIES.

Alameda County

The Alameda County Society held its regular monthly meeting on October 16th.

Dr. R. T. Stratton read a paper on "The Treatment of Aneurysm by Direct Gradual Arterial Closure," reporting a case treated by this method.

The paper reviewed the animal experimental work done by Dr. Stratton, reports of which have been previously published, in which he succeeded in dogs in closing large arteries by gradually occluding the vessel by means of a specially devised appliance, the purpose with respect to aneurysm being to promote thrombus formation in the sac by this gradual occlusion of the afferent artery. He has had opportunity to apply this method of treatment to but one case of aneurysm, involving the abdominal aorta. The operation consisted in making an incision through the abdominal wall from the ensiform cartilage to the umbilicus. The tumor was found to be very large and it was very difficult to isolate the aorta above the mass. This was finally accomplished, however, and a tape passed around the vessel, the tape being gradually tightened by means of a windlass on the instrument which Dr. Stratton has devised for this purpose. The tape and instrument having been properly placed, the wound was partly closed and the patient returned to bed. The tape was tightened slightly from time to time, the patient showing no bad effect from the procedure, and on the second day it was considered safe to completely occlude the vessel. This, however, was followed in a few hours by collapse, and the patient died before the vessel could be freed.

Autopsy showed a large aneurysm, from the sac of which the renal arteries and the ciliac axis took their origin. The ligature about the aorta therefore, which was supposed to be below these vessels, had completely cut off the circulation to the important organs supplied by them, and had so caused the patient's death. The location of these vessels could not be determined at the operation, however, and the accident was unavoidable. Examination of the sac showed it to be filled with laminated clot, which would indicate the efficacy of the method, notwithstanding the outcome in this particular case.

Dr. Nusbaumer read a paper on "Quantitative and Qualitative Leukocyte Changes in Some of the More Common Diseases." This paper was a resume of what is known to-day with reference to this subject and dealt especially with the significance of the leukocyte count in the differential diagnosis of various inflammatory and infectious diseases.

T. C. McCLEAVE, Secretary.

Los Angeles County.

The Los Angeles County Medical Association held its first regular meeting after the summer vacation in the Blanchard Building Friday evening October 6, 1905, at 8 P. M.

The minutes of the previous meetings were read and approved.

The first regular paper was entitled "Displacement of the Heart in Phthisis," by Dr. Henry Herbert. Dr. Herbert exhibited a case. Discussion by Drs. Colliver and Herbert.

The second paper was entitled, "The Relation of Our County Medical Association to the Public Health of Los Angeles," by Dr. George H. Kress. Discussion by Drs. Powers, Follensbee, Witherbee, McGarvin, King and Kress.

Dr. Kress introduced resolutions which were unanimously passed and referred to the Council for action.

Tuesday evening, October 24, 1905, at eight o'clock, in the Blanchard Building the Association was addressed by Dr. J. N. McCormack of the A. M. A. Dr. McCormack's address was intensely interesting and brought out a spirited and valuable discussion. It is expected that many of the ideas developed by Dr. McCormack will be taken up by this Association the coming year.

On the following day, Dr. McCormack, accompanied by Dr. Philip Mills Jones, Secretary of the State Society, and Dr. J. M. King, President of this Association, went to Long Beach and organized the Long Beach Branch of the Los Angeles County Association.

* * * * *

The Los Angeles County Medical Association held a regular meeting in the Blanchard Building Friday evening, November 3, 1905, at 8 o'clock.

The minutes of the previous meeting were read and approved.

The program for the evening consisted of a symposium on "Chronic Interstitial Nephritis," arranged by Dr. J. H. Utley, and read as follows: (1) Etiology, Dr. J. Lee Hagadorn; (2) Pathology and urine analysis, Dr. Rea Smith; (3) Symptomolgy and diagnosis, Dr. J. H. Utley; (4) Nervous manifestations, Dr. H. G. Brainerd; (5) Ingestion of fluids, Dr. J. A. Colliver; (6) Treatment, Dr. Earl Sweet.

Dr. Smith being absent on account of sickness, his paper was read by Dr. Dudley Fulton.

DISCUSSION.

Dr. Wernigk: In the differential diagnosis between the apoplectiform seizure of this disease and true apoplexy or cerebral hemorrhage, the fever curve as mentioned by Dr. Brainerd is very important. Regarding the restriction of fluids, I sometimes allow my patients as much as one and one-half liters of fluid. Most of them do better on less. It is of first importance to preserve compensation and prevent the degeneration of the hypertrophied heart muscle. One remedial measure that has not been mentioned to-night, and that I consider of value in conditions

of high blood pressure and threatened hemorrhage, is venesection. Flushing the bowels is also an important measure.

Dr. Visscher: I should like to ask Dr. Wernigk how he determines the amount of nitrogenous food the kidneys are able to handle. The ingestion of large amounts of food only raises the blood pressure temporarily. I do not think that a moderately increased amount of blood means, necessarily, an increased blood pressure. I should also like to know how far we should be guided by the call for liquids by the patient. Often one and one-half liters of fluid is not enough for a large man. It stands to reason that such a patient will require more liquid than one weighing, say one-half as much. The old idea of flushing the kidneys is entirely wrong; nothing can be gained by it.

Dr. Wernigk: I give as much nitrogenous food as the kidneys will handle. By repeated estimation of the urea I get a fair idea of the amount of nitrogenous matter excreted, and a fair idea of the activity of the kidneys. I have never been able to get an increase in the quantity of urine by increasing the ingestion of fluids. After all is said we must remember of course that we are to treat the patient and not the disease.

Dr. F. D. Bullard: In speaking of the etiology, the results of undue exercise as seen in athletes must not be forgotten. I saw a case not long ago, boy, 18 years of age, sprinter, had general arterio-sclerosis hypertrophied heart and contracted kidneys. Died of hemorrhage into the internal capsule. The diagnosis in these cases is frequently made first by the oculist. Saw a boy, six years of age, diagnosis made with the opthalmoscope.

Dr. Ferbert: The quotation read by Dr. Sweet lays stress upon the finding of casts in the urine. I think that they may be found in the urine of three out of five healthy men over the age of fifty, at almost any time. They are also often found after operation with out any disease of the kidney.

Dr. Brainerd: It is not the finding of cases, albumen, etc., alone that should be a guide; as has been said, these can be found in the urine of many healthy men; but the finding of these elements in connection with symptoms of persistent renal incompetency.

Dr. Edwards: I think that we have allowed laboratory methods to run away with us a little. If the microscope is depended upon too fully, we will not be able to establish satisfactory relations between our laboratory and our clinical findings.

Dr. Browning: I have had very satisfactory results from the use of the iodide of mercury. Used for its tonic effect, especially upon the glandular system, I feel that it is as valuable as any other drug.

Dr. Colliver: The ingestion of fluids over a certain quantity will raise the blood pressure and tend to break compensation in these cases. For this reason the exclusive milk diet has fallen into more or less disrepute. The patient has to take an excessive amount of fluid to get a proper amount of nourishment. Professor von Noorden allows an amount of fluid only slightly in excess of the amount excreted.

Dr. Theodore Davis: It must be remembered that the kidney is not the only organ implicated in this disease. It is in fact a general disease. I think the liver has almost as much to do in the production of the symptoms of this disease, as the kidney. Probably the uremic symptoms are largely due to the changes in the liver. Albumen and casts can both be demonstrated in the urine of most healthy individuals at some time.

Dr. Fulton: When edema appears and compensation fails, it is certainly time to restrict the fluids. There is a growing tendency to feed these patients more liberally. The general nutrition must be kept up. The exclusive milk diet is not as popular as it once was.

RAYMOND G. TAYLOR, Secretary.

San Bernardino County.

San Bernardino County Medical Society met, pursuant to adjournment in the Y. M. C. A. building, in the city of Redlands, twenty-five members being present, with some visiting physicians. Dr. Hoel Tyler, president, in the chair, and Dr. J. M. Hurley, secretary, at the desk. Reading of the minutes of the last meeting and approval of the same being ordered.

Under application for membership Dr. Hurley, the secretary, reported the name of Geo. Knapp Abbott of Loma Linda, Cal., and Dr. Tyler, the president, reported the name of Dr. S. Y. Winne, as applicants for membership. These names were referred to the board of censors to be reported at the next meeting. The board of censors presented the following report: "Redlands, Cal., Nov. 8, 1905. We hereby recommend Dr. Woods Hutchinson as worthy to become a member of this Society. Signed, Dr. R. Strubel Gibbs and Dr. J. E. Payton, Board of Censors." Upon motion the report was received and Dr. Hutchinson unanimously elected a member.

Dr. Hoel Tyler presented a case of failing eyesight, that began at about the age of 7 years, in a boy of about 11 years of age. First symptom was an attack of explosive vomiting, which has occurred occasionally up to the present date. The sight in the left eye failed first, then the right eye and now the boy can see but little from either eye. The mother of the boy stated that Dr. Ellis of Los Angeles has said that it was atrophy of the optic nerve. Dr. Liverman made an examination of the boy and stated that in his opinion some pressure near the base of the brain probably caused the failure of sight. Many other doctors rather favored this opinion, but the symptoms being so marked only a correct diagnosis could be arrived at by closer observations. Dr. Tyler stated that he would get a better history of the case and report it at a later meeting of this Society.

Dr. Harris, who was to read a paper at this meeting, not being present, Dr. Woods Hutchinson was called on by Dr. Tyler to deliver a lecture. Dr. Hutchinson's subject was "The Human Chest in Tuberculosis Subjects." Dr. Hutchinson takes the view that the chest in this complaint is more round than flat, the latter view being that of most text-book writers upon this subject. Dr. Hutchinson presented many drawings illustrative of his views. Dr. Mosley presented a tuberculous subject well advanced, upon which Dr. Hutchinson applied the calipers and demonstrated that even in this well advanced case the chest was more than normally round and drawn up. He assigned reasons for this latter condition. At the close of Dr. Hutchinson's address Dr. Hurley offered a motion that the thanks of this Society be tendered Dr. Hutchinson for his able and interesting address upon this subject and that he furnish the secretary brief copies of his address for publication, which he consented to.

Under the head of unfinished business Dr. Strong's resolution in relation to amending the by-laws was taken up and was discussed by Drs. Tyler, Hurley, Liverman, Bennett, Thompson, Gibbs, Blythe and others. When vote was taken on the amendment it was negative by the decisive vote of 5 to 12.

Adjournment was taken to the second Wednesday, the 13th day of December, 1905, in San Bernardino, Cal.

J. M. HURLEY, Secretary.

San Francisco County.

Meeting called to order at 8:35 P. M., Dr. Rixford in the chair.

Minutes of the last meeting read; motion being made and carried that the reading of the portion of the minutes relating to the new by-laws be dispensed with. Minutes approved.

The following proposals for membership were read and referred to the Committee on Admissions: Drs. Sol Hymann, S. Iglick and J. S. Parsegan.

The Committee on Admissions reported favorably on the proposals of Drs. Camillus Bush, Percy Sumner, Ethan Smith and they were declared members by the President. Dr. E. R. Taylor was elected an honorary member.

The following papers were read before the Society:

"A Case of Hematometra due to Myoma of the Cervix," Dr. Chas. Levison.

"Pyloric and Duodenal Obstruction Due to Pericoli Cystic Adhesions," Dr. P. K. Brown.

"Danger and Protection in X-ray Work. Demonstrations," Dr. W. Lehmann.

A resignation was read from Dr. H. E. Brighouse, who has moved to St. Helena. Moved and seconded that resignation be accepted. Motion carried.

A resignation from Dr. Grossman was read and the Secretary stated that he had sent two bills to Dr. Grossman but that they had been returned undelivered. Moved and seconded that Dr. Grossman's name be dropped from the rolls. Motion carried.

A communication was read from the Secretary of the State Medical Society which stated that the Council of the State Society has rescinded its action of September 10, 1904, regarding the eligibility of Homeopaths or Eclectics for membership. This question must now be settled by each County Society. The A. M. A. urges that mere membership in a Homeopathic or Eclectic Society be not considered as a bar to membership in our Society and in this the Council of the State Society concurs.

Moved and seconded that this communication be placed on file. Motion carried.

A letter from the Secretary of the State Medical Society regarding the hostile attitude of the Propontary Association of America towards the A. M. A. was read and ordered placed on file.

Dr. Carpenter presented the bill for printing the proof by-laws. It was moved and seconded that the bill be paid and appropriation be made for the publication of 1000 copies of the new by-laws in pamphlet form. Seconded and carried.

The following list of names for nominees for the 21 directors were presented to the Society: Drs. L. W. Allen, J. D. Arnold, Geo. Blumer, P. K. Brown, Harold Brunn, C. J. Burnham, F. B. Carpenter, W. F. Cheney, C. M. Cooper, Geo. H. Evans, A. A. Gianinni, H. Gibbons, Jr., A. W. Hewlett, S. J. Hunkin, S. S. Kahn, W. W. Kerr, C. J. Levison, Howard Morrow, W. Ophuls, H. D'A Power, J. Rosenstirn, H. A. L. Ryfkogel, A. B. Spaulding, D. Tait, W. I. Terry, W. S. Thorne, H. M. Sherman, P. M. Thomas, P. M. Jones, H. Gunn, J. H. Barbat, F. Dray, A. J. Lartigau, E. M. Wemple, Sr., M. Kibbe, E. Rixford.

The meeting adjourned at 10:55.

H. E. ALDERSON, Secretary.

Santa Clara County.

The regu'ar monthly meeting for October was held on the 18th at the Bristol Hotel, San Jose, convening at the hour of 8 P. M., with the following attendance: Doctors Asay, Witter, Southworth, McNary, Fraser, Lusson, Marvin, Mulcahy, Jordan, Hablutzel, Frasse, Smith, Wagner, Wright, Chilson and Holbrook. In the absence of Dr. Osborne, the secretary, Dr. Jordan was made secretary pro tem. The President reported the arrangements completed for the District meeting on the 20th of October and for the reception and banquet to be given in honor of Dr. McCormack.

Dr. Witter, Chairman of Committee on Ethics, made report on matters referred to that committee and a special committee consisting of Doctors Mulcahy, McNary and Jordan were appointed to pursue the subject further with power to act. The society referred the subject of "Contract Practice" to the Committee on Ethics with request that it report thereon if possible at the next meeting. Application for membership was received from Dr. Edward Newall, and was reported upon favorably by the committee.

The paper of the evening was by Dr. Mulcahy on the subject of "Medical Ethics." The paper was well received and was discussed by Drs. McNary, Fraser, Frasse, Holbrook, Wagner, Southworth, Jordan and Asay.

The next regular meeting of the society will be held at the Hotel St. James, November 15, 1905, at the usual hour. The paper of the evening will be by Dr. Frasse, First Vice-President; subject, "Some Account of the Physicians of California from the Earliest Times, Spanish and Mexican, Until the Days of Gold." This interesting paper will be illustrated by several drawings and photographs.

A. E. OSBORNE, Secretary.

San Joaquin County.

The last regular meeting of the San Joaquin County Medical Society was held at the residence of Dr. J. D. Young, October 17, 1905. The following members were present: Drs. R. B. Knight, S. W. R. Langdon, J. P. Hull, H. W. Taggert, J. D. Dameron, E. A. Arthur, H. E. Sanderson, Margaret H. Smyth, J. D. Young, D. F. Ray and Barton J. Powell. Drs. L. Olivieri of Stockton and B. F. Surryhne of Modesto were elected members of our Society.

The evening was devoted to planning a reception for the Northern District Medical Society which meets in Stockton Tuesday, November 14th. A large number of doctors from the northern part of the State are expected in Stockton where an afternoon and evening session will be held to be followed by a banquet. Preparations have been going on for some time past and the local Society feels that they can assure the visiting doctors a profitable and pleasant time. Drs. A. W. Hoisholt, W. J. Young and D. F. Ray were appointed as committee on music. Reception committee consists of Drs. R. B. Knight, H. W. Taggert and H. E. Sanderson. Committee on Arrangements is Drs. J. P. Hull, S. W. R. Langdon and Barton J. Powell.

After refreshments the society adjourned.

BARTON J. POWELL, Secretary.

Shasta County.

Our last meeting, held October 21st, was an unusually interesting one. The subject of contract society and lodge practice and minimum fees for life insurance examinations was introduced, and after free discussion the following resolutions were unanimously adopted:

Whereas, It is the sense of this body that contract society and lodge practice as now performed is detrimental, degrading and humiliating to the medical profession, therefore be it

Resolved, By the Shasta County Medical Society in regular meeting assembled, that no member of Shasta County Medical Society be permitted to enter into contract relations with such societies; and be it further

Resolved, That no physician in the employ of such societies be eligible to membership in the Shasta County Medical Society. Be it further

Resolved, That no member of the Shasta County Medical Society be permitted to consult with any physician following such contract practice.

In regard to life insurance examinations the following was adopted:

Resolved, That the minimum fee for examination for the "Old Line" Life Insurance Companies be five dollars, and for Fraternal Insurance Companies and all other Societies and Organizations, two dollars.

These resolutions shall be in effect after January 1, 1906.

Drs. R. E. Bolling, C. E. Boynton, F. Stabel of Redding and George B. Worthington of McCloud were elected to membership.

The following officers were elected to be installed in January, 1906: Dr. C. E. Reed, President; Dr. Thos. J. Edgecomb, Vice-President; Dr. R. F. Wallace, Sec-

retary and Treasurer; Trustees: Drs. B. E. Stevenson, F. Stabel and R. E. Bolling. Executive Committee: Drs. S. T. White, Robt. T. Legge and L. A. Bauter.

Dr. Robert T. Legge presented a paper reporting the clinical history of many cases of typhoid fever occurring in an epidemic in McCloud in the summer and fall of 1903. This paper elicited much interest and evoked considerable discussion.

A paper by Dr. C. E. Reed, subject, "Peritonitis," was also read and discussed.

R. F. WALLACE, Secretary.

MEDICAL SOCIETIES.

Redlands Medical Society.

The first meeting of the Redlands Medical Society since the summer vacation was held on Wednesday afternoon, October 18, 1905. A large attendance was present. Drs. Woods Hutchinson and H. G. Hill, of Redlands, and Dr. I. B. Parker of Grant's Pass, Oregon, were visitors. Dr. M. Antoinette Bennette, of San Bernardino, was elected a member. An application for membership was received from Dr. Woods Hutchinson, formerly of Portland, Oregon, now a resident of Redlands. The committee appointed at the June meeting to draw up resolutions expressing the views of this society in regard to contract practice, etc., reported as follows:

"To the officers and members of the Redlands Medical Society: Your committee to whom was referred Amendments Nos. 1 and 2 adopted by the Sonoma County Medical Society would beg leave to report as follows:

"We appreciate the endeavor to maintain at a dignified figure charges for professional services, and believe contract work as it exists in certain benevolent societies and with individual families should be discountenanced. On the other hand, we think we may contract to act as railway surgeons and not merit expulsion from any medical society on account of such contract.

"Signed and submitted respectfully,

J. E. PAYTON,
T. M. BLYTHE,
Committee."

The report of the committee was duly accepted and was adopted by the society.

The paper of the day was by Dr. Gayle G. Moseley, his subject being "Prognosis in Tuberculosis." A general discussion ensued. The society adopted a motion to hold evening meetings hereafter.

* * * * *

The November meeting of the society was held at the residence of Dr. D. C. Strong on Wednesday evening, the 15th, the president, Dr. C. A. Sanborn, in the chair. Dr. Taltavall, the secretary, being absent, Dr. Moseley was appointed secretary for the evening. Those present were Drs. M. Antoinette Bennette, of San Bernardino; J. H. Evans and W. P. Burke, of Hyland: F. H. Koepke, of Mentone; and J. L. Avey, Hoell Tyler, E. A. MacDonald, C. E. Idé, F. H. Moore, D. C. Strong, S. Y. Wynne, T. C. Pounds, J. A. Shreck, G. G. Moseley, H. M. Haskell, Woods Hutchinson, W. B. Power and C. A. Sanborn, of Redlands.

The paper of the evening was presented by Dr. Wynne, his subject being "The Doctor." He reviewed the history of the doctor and his relation to the people from ancient times to the present day. He also advocated a national board of Medical examiners to be appointed by the government, and that a certificate from this board should be recognized by the examining boards of the different States. The paper was discussed at length by all the members present.

Dr. Tyler reported a case of large abscess in the sheath of the rectus muscle just above the bladder, following typhoid fever; also a case of skin-grafting for a severe burn. Dr. Power exhibited an exceptionally large prostate and two large calculi removed from a patient by the perineal route.

The matter of the contamination of the water supply was discussed, and, while it could not be said positively that our water supply was polluted in any way, it was thought best to appoint a committee to investigate the matter and report at the next meeting. The president named Drs. Power, Hutchinson and Tyler as such committee.

The thanks of the society were extended to Dr. Strong for his courtesy and entertainment.

Dr. Sanborn invited the society to hold the next regular meeting at his residence, which invitation was accepted.

G. G. MOSELEY, Secretary pro tem.

Northern District Medical Society.

On November 14, 1905, occurred the annual meeting of the California Northern District Medical Society. A large number of doctors from the northern part of the State attended. The regular session was held in Masonic Hall from three to five, during which time the following program was carried out:

Address by R. B. Knight, President of the San Joaquin County Medical Society.

Remarks by B. J. Powell, Chairman of the Committee of Arrangements.

Annual Address of the President, "Mechanical Obstruction of the Ileo-Cecal Valve," by J. D. Dameron.

"Tetanus Antitoxine," with report of a case, by D. F. Ray.

"Rupture of Abdominal Viscera," by A. M. Henderson.

"Frequency of Pterygia in the San Joaquin Valley," by B. J. Powell.

"The Terminal Stages of Cardio Vascular Disease," by E. W. Twichell.

The business session was held from seven to nine in the evening. Between the hours of five and seven the visiting doctors were taken in private carriages, carry-alls and automobiles to visit some of the prominent hospitals and points of interest in and about Stockton. They received a special welcome at the Emergency Hospital where they were shown through by Dr. Ladd, the attending surgeon. At St. Joseph's Home, the sisters and nurses in charge gave the visiting doctors a cordial reception and every part of the hospital was visited. The Stockton Athletic Club was also visited and other points of interest.

In the evening the local medical society tendered the California Northern society a banquet at Philson's Cafe.

The following toasts were happily responded to: "The California Northern District Medical Society," Dr. E. E. Stone, Napa; "Stockton," Dr. J. D. Dameron, Stockton; "State Society," Dr. J. H. Parkinson, Sacramento; "Reminiscences," Dr. A. W. Hoisholt, Stockton; "The Full Stomach," Dr. W. E. Bates, Yolo; "The Ladies," Dr. F. R. Clarke, Stockton; "Sacramento," Dr. A. M. Henderson, Sacramento; "The British Medical Society," Dr. W. W. Fitzgerald, Stockton; "Our Babies," Dr. H. W. Taggart, Stockton.

Adjournment to meet in Chico for the semi-annual meeting.

BARTON J. POWELL.

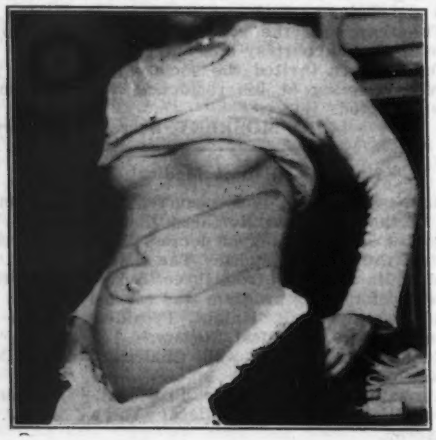
San Francisco Polyclinic Gathering.

Dr. Ryfkogel exhibited a specimen and photograph from a case of Banti's disease.

The patient, a female aged 40, height 5 ft. 3 in., weight 122 lbs.; mother had died of cirrhosis, began to vomit blood and pass blood from rectum in 1898. She had spell of cramps about this time and shortly afterward noticed a tumor in her side. She had had swelling of the feet, but showed none at the time of examination. At intervals she had had abundant ptechial hemorrhages and shortly after Dr. Ryfkogel first saw her she had an attack of these on the legs, which became almost confluent. As far

as she knew she had not had any extensive abdominal dropsy, but thorough examination showed presence of some fluid in the flanks.

On examination the heart and lungs were normal, liver was definitely smaller than normal. The spleen was greatly enlarged, extending 2 centimeters below the umbilicus and 7 centimeters to right of the median line. The notch could be distinctly felt.



The spleen was removed by Dr. Ryfkogel August 13, 1904, through a median incision. It was extensively adherent to the stomach, bowels and diaphragm and to the liver, which was markedly cirrhotic. The very severe hemorrhage resulting from these adhesions could only be controlled by packing. Unfortunately the wound became infected. The patient did well otherwise for four weeks, although in the last two weeks she showed a slight daily evening rise of temperature. One day while on the roof garden she suddenly collapsed, vomited blood and died 36 hours later.

The autopsy showed a thrombosis of the superior mesenteric vein, beginning gangrene of the small intestine and a small abscess under the diaphragm at the side of the tip of the Mickulicz drain.

On first examination the blood showed 3,590,000 red cells, 2000 white cells and 30 per cent hemoglobin. Before operation this rose to 40 per cent. The differential count showed 77 per cent neutriphiles, 9 per cent large mononuclears, 2 per cent eosinophiles, 12 lymphocytes, no myelocytes. After the operation the white cells shot up to 23,000, but subsequently dropped to 12,000. The hemoglobin after operation rose to 60 per cent and was at this point at the time of her death.

Dr. M. W. Frederick: The young woman whom I present to you to-night first came under my treatment in the month of May, this year. At that time both nares were quite blocked, and the lids of the right eye were so swollen that the eye could not be opened. A partial removal of the contents of the right naris caused the swelling in the region of the right eye to subside, and also allowed a small amount of air to pass through the right nostril. She was then taken to a hospital, with the object of removing the ethmoidal cells, and cleaning out the sphenoidal sinus, which were supposed to be the seat of the disease. Opening into the maxillary sinus, through which the operative procedures were to take place, was very easy, as with the first stroke of the mallet the buccal wall of the sinus came away in one piece, disclosing a sinus which seemed perfectly healthy. The removal of the ethmoidal cells and the entrance into the sphenoidal sinus offered no difficulty whatever, so that there was all reason to believe that the result of the operation would be satisfactory. After her return from the hospital she was treated in the office for several weeks, but the stenosis of the nostril kept increasing. What annoyed me more than anything else were the masses of brawny exudate which kept reforming, no matter how often I removed them. A searching examination gave me good grounds to suspect lues, and to begin the exhibition of potassium iodide. The effect was almost magical. The exudates disappeared and the tissues of the nose began to shrink, not alone on the operated, but also on the other side. After about two weeks a large sequester of dead bone in the septum was seen and removed. Since then there has been no further trouble, and, as you can see to-night the nose is quite free, and the opening into the right sphenoidal sinus can be seen by anterior rhinoscopy. There is no bad odor to the nose, whereas at first it was very unpleasant to come near the patient.

The reason I show this case to-night is to emphasize the fact that the nose and throat specialist must be constantly on the lookout for lues. In this case, having an unmarried female to deal with, I felt backward about asking pointed questions, and when I did make up my mind to find the truth I had to preface my questions with a profuse apology in case I were on the wrong track. But the nose and throat are such places of predilection for lues in all its stages, that one must constantly bear it in mind. In this case the patient would have been saved the annoyance of the operation had the correct diagnosis been made at the outset.

SAN FRANCISCO SOCIETY OF EYE, EAR, NOSE AND THROAT SURGEONS.

The regular monthly meeting was held on November 19th in the rooms of the San Francisco Polyclinic the president, Dr. K. Pischel, in the chair.

The scientific program follows:

Dr. Geo. H. Powers presented a case where a rusty rivet entered the eye of patient. He considered the foreign body to be lodged in the sclera and thought that the eye need not be removed as the trouble was not involving the ciliary body. When the patient came to him there was marked chemosis, traumatic cataract with no light reflex. Patient could barely count fingers and suffered no pain. The doctor presented an admirable skiagraph showing the foreign substance in position.

Dr. Barkan said that the foreign body should be located and an attempt made to remove the same. Failing in this the eye must come out.

Dr. Card concurred in this view.

Dr. Pischel had the same suggestion.

Dr. W. F. Southard presented a case of burning of the conjunctiva and cornea with lime. The patient works in a beet sugar refinery and accidentally got some of the mixture of molasses and lime into his right eye. There was extensive inflammation of the palpebral conjunctiva, but no symblepharon. The cornea had a peculiar whitish appearance and the iris and pupil were invisible. No pain. These burns resemble those of babbitt metal and the doctor asked whether the burn extended below the epithelium, as upon this point the prognosis depended. The treatment was sterilized vaseline, to prevent adhesions, and atropine.

Dr. Southard also presented a case of microphthalmos, with a congenital cataract. The cataract is usually found in these cases and is not developed. The eye would not have useful vision even were the cataract removed.

Dr. Card suggested needling of same.

Dr. Southard thought this might be done but for cosmetic reasons only.

Dr. Powers showed a little boy who had been operated on for convergent strabismus, by the Panas method. The operation was performed here at St. Mary's Hospital by Dr. D. B. St. John Roosa of New York. Sight was nearly normal in both eyes, patient accepting under atropine a plus 0.75 sphere and getting twenty-twentieth vision. There was possibly 2 degrees of convergence at present.

Dr. Powers had read much about this operation and as Panas, a reliable authority, had performed it a number of times on the cadaver before trying it on the living he felt that his views were correct. Dr. Roosa had performed the operation a number of times in New York with almost uniform success. The procedure is based upon the assumption that in strabismus both eyes are involved and the contracted muscles are in a state of clonic spasm. Therefore they are to be stretched before severed. This is done usually under general anesthesia, both eyes being operated at the same sitting.

The eye is grasped with forceps and slowly turned out or inward, as the case may be, and held in that position for a few minutes. This stretches the offending muscle and overcomes the contraction. It is now cut at its insertion and a purse-string suture closes the conjunctiva. The same is done to

the other eye and both are bandaged. A few days later, if divergence exists, nothing is done; if convergence, the accommodation is paralyzed with atropine, and when the redness has disappeared the proper correcting lenses are prescribed.

Dr. Barkan thought that one should be loath to operate both eyes at the same sitting. He said that he would like to see how long the correction would last, and mentioned some cases where he had found it necessary at the expiration of some years to reoperate.

Dr. F. B. Eaton considered the dynamic convergence as about 5 degrees and did not admire the operation. He considers a muscle weakened by this stretching process.

Dr. W. S. Franklin referred to Prof. Schweigger's method of forcibly turning the eye outward after the muscle had been cut. The only difference between the two operations was this fact, i. e., the turning or stretching before or after the muscle was severed. Schweigger had special forceps for this purpose and he did it with the hope of having the cut end of the muscle attach itself to the eyeball further back than it ordinarily would.

Dr. Powers said that he would present the case again at the expiration of six months and thought that that would be ample time to judge the ultimate result.

Dr. R. D. Cohn presented a case of unilateral exophthalmus. The patient was a female, 19 years old, with no history bearing upon the present condition. Right eye has protruded 10 years and patient came to the clinic for another trouble. The vision was good, 6-18—6-12, no fundus changes. X-rays showed no appreciable shadow. The exophthalmus is not increasing and the patient has luxated the bulb a number of times, this latter condition disturbing her mentally. He has given potassium iodine in large doses (5.0–6.0 gm. daily) with no effect upon the protuberance. He considers this a case of benign neoplasm within the orbit.

Dr. Barkan thought this a benign tumor, saying that it might be fatty or an angioma. He felt that the doctor was justified in exploring the orbit by Krönlein's method.

Dr. Powers mentioned a case wherein he had replaced a luxated bulb, the patient being the pet dog of one of his friends. He asked whether, in this case, the sinuses of the nose had been examined.

Dr. Franklin described a case he had witnessed at Fuch's clinic where the orbital tumor proved to be a serous cyst which was opened during the course of the operation, leaving practically no trace of the walls.

Dr. A. Barkan showed a case of one-sided "Morbus Basedowii." These occur in rare instances. It had developed quickly, some tachycardia was present, but Stellwag's and Graeffe's signs were missing. No fundus changes, no bruit.

When the eye is palpated and pushed back into the orbit the patient notices that the next day she has a hemorrhage from the nose.

Dr. Franklin thought that the right eye was only relatively exophthalmic. He considered the left eye as also affected and somewhat prominent, but being so to a lesser degree than the right it gave the latter the appearance of single prominence.

Dr. E. F. Card described a case of hysterical aphonia. The patient was 12 years of age, healthy, but rather phlegmatic in all her actions. Weight 150 lbs. She recovered her voice with the usual treatment (strong faradic current) and was permanently cured.

Dr. Welty minutely described the treatment, insisting upon the fact that these patients must be made to talk at the first visit. Drs. Cohn, Southard and Franklin described similar cases.

W. SCOTT FRANKLIN, Secretary.

MEETING OF CALIFORNIA PUBLIC HEALTH ASSOCIATION, SAN FRANCISCO, OCTOBER 28, 1905.

The president addressed the members of the convention in part as follows: "This is the fifth session of the California Health Association. The object of this meeting is to promote the various methods of forwarding the public health of the State of California, and especially to discuss subjects such as have been suggested by our program.

"Sanitary science is receiving much more attention in the last decade than it has at the hands of Americans during any previous decade. It is dealing with the problem of medicine on broader lines than usual and the results are much greater, so I feel that in belonging to a convention of this kind we are engaged in the most practical medical work that the world knows at present. * * *

"It is not my intention to prolong the introductory speech. I desire to express satisfaction in seeing you here and hope that we may have a successful meeting to-day, and before we leave, lay lines for the meeting next April, when the Association will convene again in this city."

The first paper on the program was an address by Dr. W. F. Snow of the Stanford University on the subject of "Sanitation of Stanford."

In the absence of Dr. Wilbur Dr. Foster opened the discussion as follows: I have been extremely interested in the paper from the fact that it covers ground that has needed covering for a long time in this State. There have been spasmodic attempts made all through the State to do sanitary work and establish certain records, but they have not been continuous, and being isolated, with no relation to the health office, they did not reach the point which they should have reached in order to do any lasting amount of good. I can imagine, in Palo Alto, after their experience, that they will never have another epidemic of typhoid fever. They know the whole sanitary condition of the district, and in the event that one case of typhoid fever appears, or any other disease that is born like that, they could put their finger upon the cause at once and stop it at once. Now, if we could have maps like this and records like this in all districts, we could bring them all together and have a sanitary map of California. It is something I have felt the need of very much. In my office a report will come from some part of the State that there is an epidemic of typhoid fever and assistance is needed. I do what I can, but I have no records. We know, in a general way, where their water supply comes from, but we have no map, even of their pipes or their relation to the sewers. There are many things that Dr. Snow could work out that would help the State—the water supply for instance—it is one of the most important things of this State. I doubt if the health officers in one-quarter of the incorporated towns of this State know anything about the water supply. They do not know where it is brought from, they do not know how old the pipes are, or whether the reservoir from which it comes has ever been cleaned.

In the State Board we have lately started a bulletin which we want to be a State issue. We want to make it a bulletin of the health officers and make it of interest to all to keep in touch with each other. * * * We want to show what is being done for the whole State and if you have anything of interest to the State send it along and we will promise it shall be published. * * * Now, the idea of a State deputy at large is a good one. It had never occurred to me and I do not know that it is possible, but it might be done; however, every health officer of this State is a deputy. It is their duty to enforce the law. Of course, they can only do it in their own district. I will not take any more of your time, but I have been very interested in the paper and I hope it will excite more discussion.

Dr. Simpson, San Jose: In my work in Santa Clara county I have in every district a deputy, and

while I could not get from each one of these deputies a map of his district and so succinct a record, each physician who has been appointed has taken sufficient interest in this matter so that, at any time, in my office, I can get in communication with one of these gentlemen and I can learn what is the condition of that part of the county. Once a month I receive a report from these gentlemen if there is anything to report. The success of the work of the health office and of my work as health officer has depended entirely upon the voluntary assistance of Dr. Snow and Dr. Wilbur and various physicians about the county, who come and help willingly. It shows the interest medical men have in the work of their community. I feel very proud of my deputies and very proud of the work that Dr. Snow and Dr. Wilbur did at the time of the typhoid epidemic and since. This is not a model for Stanford only. It is a model for the whole United States. I want the doctors of this State, and through them, the people of the State, to know that the possibility of an epidemic at Stanford is impossible.

Dr. Williams of Palo Alto, Dr. Ragan, health officer of San Francisco, and Dr. A. R. Ward of the Hygienic Laboratory at the State University, also took part in the discussion.

After a few remarks by Dr. Regensburger, president of the State Board of Health, a recess was taken until 1:30 p. m.

Afternoon Session.

The first paper on the program of the afternoon session was by Dr. Foster, on the subject of "Contamination of Water Supplies."

In the absence of Dr. Canney the discussion was opened by Dr. Snow, who said in part: There are many things that occurred to me during the reading of the paper. Dr. Foster did not speak of any definite location, but I wish to speak of Russian river, where so many of our people go for the summer. A great many students from the university go there and regularly, at the beginning of the early summer season there will be a few cases of typhoid fever along that whole region. I think it is vastly important that pressure be brought to bear upon supervisors of different districts, when people from the city are allowed to go out there and expose themselves, as Dr. Foster has outlined, and then come home as invalids.

Dr. Simpson, Dr. Ewer of Oakland, Dr. Walker and Dr. Bogle of Santa Rosa, and also Dr. Fay of Sacramento participated in the discussion.

Dr. Fay of Sacramento, read a paper on "Undrawn Fish and Poultry." Discussion followed by Dr. A. R. Ward and Dr. W. C. Hassler.

Owing to the lateness of the hour the paper on "Control of Contagious and Infectious Diseases of Aliens Arriving in San Francisco" was omitted, but the subject was ably presented by Dr. H. S. Cumming, Past Assistant Surgeon, U. S. Public Health and Marine Hospital Service, San Francisco.

On account of the unavoidable absence of Dr. Woods Hutchinson the paper on "Quarantine in Typhoid" was omitted, but the subject was briefly discussed by Dr. Fay, Dr. W. C. Hassler of San Francisco and Dr. Von Adelung of Oakland, who said: Discussion has been indefinite by reason of not knowing what we mean by quarantine. We have notification and placarding. That is a step which we take to warn people that they are near a disease which is contagious or infectious, or both. And then we have "quarantine," which means that we draw a line around certain premises. Now, the question as to whether or not we should quarantine typhoid should be determined. If it means, shall we draw a line? why, I stand entirely opposed to such procedure. I am also not in favor of placarding the house. I think we are doing all that can be done in typhoid cases if we have them reported. The important measures are to disinfect the feces and urine, and to avoid contamination of articles. These measures cannot be furthered by quarantine. Supervision by a visiting health official, or public nurse, might aid. Especially should instruction be given regarding the details of disinfecting feces and urine, i. e., the proportion of disinfectant, the time it should stand, and finally the continuance of disinfection of urine for weeks after recovery.

During the evening the Association was entertained at dinner at the Bohemian Club by Dr. James W. Ward. The members of the San Francisco Board of Health, and the President of the State Board of Health discussed the milk problem in San Francisco.

On the following morning the members were the guests of Dr. Cummins, quarantine officer, who took the party to the quarantine station where the plant was inspected, and then for a trip about the bay.

COOPER SCIENCE CLUB.

The regular meeting of the Cooper Science Club was held November 6, 1905.

Report of a case of dysentery with megastoma entericum infection by Drs. Clark and Oliver.

Dr. Clark read the following history of the case:

Patient a male, 29 years of age, a native of New Zealand, came to the clinic complaining of pain in abdomen, diarrhea and blood in stools. F. H. negative. Previous history: ordinary diseases of childhood. Malaria, rheumatism and gonorrhoea. Chancre 5 years ago, no secondaries although patient says he occasionally has sore throat. At time he had chancre, was treated locally and internally for 2 or 3 months. Alcohol none at present, formerly used a great deal. Tobacco moderately.

P. I.—In 1896 while living in Australia patient had 3 or 4 large soft movements a day. This lasted some time but recurred spontaneously. From 1896 to 1901 patient lived in the tropics and he states present trouble commenced while in Java in 1899. At that time he had a bowel movement about every half hour; the movement was soft, small, not very slimy, sometimes yellow and sometimes white in color, no blood. Was advised to go to the mountains in Java which he did, but did not improve. Was treated at Penang by internal medication without improvement. He then went to Singapore and was treated by rectal irrigation, solutions of permanganate of potash and recovered in about 10 days. Remained well for about two years, having one or two normal passages a day. In 1902 he began again to have 2 or 3 large soft passages a day gradually getting worse over a period of 6 months until he had bowel movements every half hour. Went through the same treatment of permanganate of potash rectal irrigation and recovered but recovery did not last long, occasionally having slight attacks of diarrhea, until about six months ago when they became worse and increasing in severity until coming to clinic October 23, 1905, when he had passages every half hour, small in amount, soft, occasionally slimy and containing blood. P. E.—Fairly developed and nourished, face pale. Throat red, tonsils slightly enlarged. Cervical glands very much enlarged. Lungs and heart negative. Liver and spleen not enlarged. Dull pain on pressure over abdomen. No edema of legs. Specimen of feces was obtained and sent to Dr. Oliver for examination. They were found to contain megastoma entericum in large numbers. Of this Dr. Oliver will speak. The patient was sent to Lane Hospital, given castor oil, liquid diet and permanganate of potash 1:5000 rectal irrigations. Improvement followed this treatment.

Report of case by Dr. H. R. Oliver:

Before entering on a description of our case, a brief history of the infusoria will be in order. Donne in 1836 found in the vaginal secretions of women

an undescribed parasite. These were small bodies provided with cilia and flagella on account of which he gave them the name, trichomonas with the specific name vaginale. Vogel, Siebold and Valentin denied their parasitic nature and thought them to be altered epithelial cells. His work was, however, later confirmed by Kunstler and Henneguy in France and Blochmann in Germany whose investigations, while differing in many respects have added to our knowledge. On the whole the parasites were looked upon as of little importance. Since Donne's discovery they have been found in snails, frogs, ducks, etc. Davaine first described them in cholera in the stools and in typhoid fever, and gave them the name of cercomonas hominis. Dock found that the stools of patients with amebic dysentery. They have also been found and described by Ekecrantz and others. Lambli also found them in (as he thought) the stools of children suffering from diarrhea and called by him cercomonas. But Schunberg claims that Lambli cercomonas, 1888, were really megastoma entericum and belong to an entirely different genus. Grassi found and named them mono-cercomonas but it is thought that they were really trichomonas. Epstein made extensive observations in 26 cases of infantile diarrhea and the organism found were pronounced by Prof. Hatschek to be mono-cercomonas. Sternberg found the cercomonas in the mouth. Lenhartz in abscess of the tonsil. Kranneberg in pulmonary gangrene and pleurisy. H. Hill Hassall was the first to find them in the urine and describe them under the name of Bodo urinaris. In 1883 Kunstler of Bordeaux reported the first case in which they were found in freshly voided urine but the species to which they belonged was not exactly known. In 1893 Drs. F. Tilden and Brown presented specimens and photos before the Academy of Medicine but they were later found to be the cilia. Dock was the first to describe them in America in the vaginal secretion of pregnant women at Galveston, Texas. The first undoubted case of trichomonas in the urine was Marchand's in an old man with urinary fistula of the perineum. Dr. K. Muria of Tokio reported also a case which showed flagella and an undulating membrane.

Then Dock found them in the urine of a man in Texas. Up to this time only the trichomonas vaginale of Donne, trichomonas hominis of Davaine cercomonas were found in connection with the human being.

There being some marked difference in the specie, I think it well to describe briefly some of them. The cercomonas is a small oval or round disk body and has posteriorly a single flagella. In the young forms it might be absent. The adult may lose its flagella and protrude a pseudo podia while vacuolation occurs at the same time indicating approaching death.

The trichomonas of Donne is oval or spindle shaped .012 x .01 m.m. From the anterior pole four flagella project and an undulating membrane extends laterally to posterior pole which may be rounded or taper to a tail-like appendage as in the cercomonas. They become vacuolated as death approaches. They also have near anterior pole a row of cilia. Both species in activity motile.

The megastoma entericum, Grassi-Lambli, is pear-shaped .01 x .02 x 0.075—.05 m. m. In the anterior portion is a well marked depression which constitutes the peristome or mouth. In the bottom of this depression near its anterior arc are two round hyalin bodies which represent the nuclei. It has eight flagella in pairs and directed backward. The first pair are at the outer arcs of the peristome and the second and third pair at the posterior arc of the fourth issue from the tapering tail end of the body. Vacuoles are absent, nutrition occurs by osmosis, the parasite adhering to the epithelium of intestinal mucosa by peristome. They are not motile. Grassi first observed them in 1888 in mice, cats, dogs, rabbits and sheep. The mode of reproduction in the flagellata in general is not exactly known. Kolloker and Marchand claim to have observed longitudinal division in trichomonas vaginalis. As to sporulation nothing is known of pathological importance. Cunningham, Grassi and Schunberg thought them common parasites of the intestines. Epstein, however, by his clinical observation shows that at least some of them can produce diarrhea in man. Perroncito claims that a specie of intestinal parasites cause a fatal disease in guinea pigs. Dock does not give a positive statement as to his views as to their pathogenic action.

In 1895 H. Salmon of Frankfurt reported the first authentic case of infection in man with megastoma entericum, though he states they were the same as the cercomonas of Lambli which were according to Schunberg, placed in the wrong genus by Lambli. He reports the case of a young man working in a mill who suffered from diarrhea the cause of which was the megastoma entericum, no other infusoria being present. This man's sister-in-law also had the disease, and so did the other men working in the mill. The infection was attributed to their drinking the unfiltered and unboiled water from the river Elbe.

Salmon describes the diarrhea as watery and mushy stools with some mucus and at times blood, especially after calomel. He states that after five months' treatment they were still found in the stools which were still mushy in character, although the man had returned to work. He describes the parasite as above. He attempted cultivation and animal experiments and they were both negative.

G. Hoppe-Seyler in *Modern Medicine* says we should not disregard sporozoa and infusoria for they often give rise to very stubborn intestinal catarrh which in part shows a similar picture to dysentery and amebic enteritis. In their action they are probably assisted by bacteria and we should not go so far as was done in the case of the ameba to look upon them as comparatively harmless, accidental parasites that appear in intestinal catarrh.

The infusoria diarrhea is more frequent in man than sporozoa and are due to the flagellata megastoma entericum, cercomonas and trichomonas. These parasites like the cercomonas and trichomonas and megastoma entericum rest on the epithelium or vegetate freely in the intestinal contents. They irritate the mucous membrane principally mechanically giving rise to marked peristalsis. They enter the alimentary tract through food contaminated by rats, etc., only the encysted forms pass the stomach, the gastric juice being fatal to the non-encysted forms. The encysted forms develop and give rise to large accumulations. The stools caused by them are frequent, ten to fifteen daily and are most frequent during the day and not at night. They consist of a watery or mushy mass with some yellowish colored mucus. This diarrhea weakens the patient and they finally suffer from mal-nutrition. Especially so if they are present in cases of carcinoma of gastro-intestinal tract, or in cases of tuberculosis pulmonaris. In these cases they may cause a profuse diarrhea which is checked immediately when they are removed. In the literature as far as I searched I found no mention of the occurrence of the megastoma entericum in America and the case of Salmon was the only one that can be laid to the megastoma entericum as the cause of the dysentery.

In our case as the clinical history shows, he has as high as 10 stools. Sometimes with blood and mucus and often without. In his stools I have not found any other parasites except the megastoma entericum. I found no ameba, although as Musgrave has shown us there may be and show no dysenteric symptoms, and we may have some abscesses of the liver without dysentery. Some of his stools are quite bloody especially after a purge and contain a good quantity of mucus. Esinophiles are present in

the stools in large numbers. The megastoma were of all forms, the flagellates, encysted and young. They stain beautifully with Wright's, the body strong dark blue, the peristome light blue, the nuclei bright red and the flagella reddish blue. In some, especially the larger one, I thought I could see the splitting of the chromatin of the nuclei on each side. Then these fine granules extending toward the tail on either side, the center of the organisms becoming quite dark blue and the outer sides lighter. These little granules collected in small groups and finally little spots like the presigmentation bodies in malarial hematozoon.

I can not and do not make this as a final statement as my time and observations were very limited. But they reminded me much of Craig's description of the same process in the ameba dysenteria.

On November 18th an examination of the rectum as high as the sigmoid flecture was made by Dr. Rigdon with aid of a proctoscope and light carrier. This examination showed absolutely no lesions of any nature although the mucous membrane in places looked very hyperemic and in places a little blood escaped. The man's present condition is much the same as two weeks ago. We shall try treatment again and then rest as in this time and record the increase in symptoms and number of megastoma.

DISCUSSION.

Dr. Blumer: I have seen one or two cases of this infection in Baltimore and we took a view then that is now generally accepted that the parasite is quite a common one in the intestine and is not that cause of the intestinal symptoms. I do not feel quite justified in taking that view now, especially when we consider that changes have taken place in our ideas in connection with other parasites that were supposed to be harmless. The Balintidium coli has been shown by Strong almost certainly to produce intestinal lesions. They could be found deep in the mucous membrane of the intestines. It seems to me that it will be necessary to have autopsies on some of these cases to decide whether the parasite is directly concerned with the histological lesions. The zoologists describe the parasite as simply becoming adherent to the epithelial cells. That is not a reason why they should not produce a lesion. Mechanical irritation might be sufficient. One should be very careful to exclude all other causes of dysentery in a case like this. It is quite possible too that this parasite may aggravate a dysentery which has been started by something else. I do not see how the matter can be cleared up until we have autopsies on some of the cases.

Those encysted forms that Dr. Oliver describes are pictured in Braun's work on Animal Parasites. There is a statement made that Schaudin has described a complicated form of division in the parasite.

Dr. Gunn, discussing the paper read by Dr. Oliver: I agree with what Dr. Blumer has said. I think, as far as we know, the megastoma entericum, or the lamblia duodenalis as classified by Stiles, is not pathogenic. Various flagellate infusoria, some of them exceedingly common, are observed in the intestinal tract, usually when there is present an inflammatory condition. But that they are capable of producing any lesions there is no proof and there is much to show that they are not pathogenic, such as animal experimentation, etc. The parasite described by Dr. Oliver has been found in the stomach in six or seven cases according to Nichol.

Dr. Schmoll reporting two cases of abdominal aneurysm:

The first case which I wanted to present this evening was a case of the aneurysm of the abdominal aorta. The man is 73 years of age. Noticed about 7 years ago that a pulsating tumor was growing in his abdomen causing him a great deal of pain. This tumor kept on growing for about 2 or 3 years after which time it ceased to increase in volume. About 6 months ago a physician made an exploratory laparotomy and finding an aneurysm he closed up without any further surgical interference. If you examine the patient you will find a tumor about the size of a child's head in the umbilical region. This tumor reaches below to about the promintorium where you can feel the pulsating aorta branching into the two iliac arteries. Above one can go in between the upper part of the tumor and costal margin. The tumor is quite hard and pulsating. Its nature is proven by the fact that it pulsates not only in saggital direction but also expands laterally. The lateral expansion is very little compared to the antero pulsation proving that there is a large amount of pulsating within the aneurysm, a fact which explains the stationary character of the tumor. Besides the double sciatica caused by the aneurysm the patient complains of pain in his chest. At first I thought the pain radiated from the abdominal aneurysm but lately he has shown new symptoms which makes me think that he has also an aneurysm of the descending aorta. Within the last 3 weeks he complains that the food sticks at a height corresponding about to the 4th dorsal vertebrae, that he can only swallow after some efforts. On examination the patient shows a tenderness over the 4th, 5th and 6th dorsal vertebrae on percussion. I thought that I could sometimes see pulsations there but am not sure. On auscultation there is nothing to be heard but on percussion there is a distinct dullness. The difficulty in swallowing, tenderness of the spine, intercostal neuralgia of frontal region, seemed to me to be very suspicious of the presence of aneurysm of the descending aorta.

The second case is a case of aneurysm of the ascending aorta. The man is 53 years old and has been complaining for the last 6 years of asthmatic attacks. When I first looked at the patient I was impressed by the fact that his right jugular vein was full and did not empty on deep inspiration. It was not pulsating. This can only be explained by the intra-thoracic tumor pressing upon the vena cava superior which in most of the cases is an aneurysm. I therefore looked for a normal pulsation of the chest wall and soon detected a pulsation at the third intercostal space about 4 c. m. to the right of the right sternal border. One could feel a very marked diastolic shock extending as far as the pulsation. The combination of the pulse in the normal pulse with that marked diastolic shock and booming low pitched second aortic as we hear over this chest assures the diagnosis of aneurysm. A tumor to which pulsation would be only communicated and not present diastolic shock and would not give this low pitched characteristic second aortic sound. The diagnosis was confirmed by an X-ray which showed the aneurysm on the descending aorta.

It happened that a few days after this case I saw a second case of aneurysm of the ascending arch of the aorta which was even smaller than the one in this case. The symptoms presented were a general diffuse pulsation of the whole chest wall. Very marked tug of the trachea and a general pulsation and the whole head pulsating synchronous with the radial pulse. There was a marked difference between the two radial pulses, the left being much smaller than the right and the characteristic low pitched second aortic. The X-ray of this case showed also an aneurysm of the ascending arch and a second aneurysm of the descending arch which clinically did not cause any symptoms.

DISCUSSION.

Dr. Cheney: One of the most interesting points with these cases is the frequency of aneurysm in San Francisco. Whether it is true that aneurysm is seen more often than in the East I would like to know from those who have had experience there.

Dr. Blumer: As far as New York is concerned, I will say that aneurysm is more frequent here than

in Central New York. I do not think, however, that it is more frequent here than in Baltimore where I saw a great many cases, especially among the colored people. I suppose that is due to the fact that such a large proportion of them have had syphilis at one time or another, perhaps also because Baltimore is a seaport and so many sailors have the same disease.

Dr. Lehmann explained the features of the demonstrated diapositives which both show the aneurysm of the ascending aorta very much smaller than it really is; in both cases it extends more in frontal direction than in sagittal, as shown by the screen examination which was made in all directions. Illuminating the chest not only in dorso-ventral and ventre-dorsal direction, but from one side to the other. The pressure upon the vena cava in the first case is demonstrated by the marked shadow, which is denser and larger than usually found.

Dr. Schmoll, closing discussion on his case: The frequency of aneurysm in this country is certainly very much greater than the occurrence in Europe. I have seen in this short time that I am in America, more cases than I have seen in Europe. I think there is no great difference between the occurrence of aneurysm here and Baltimore and I think in both cities the frequency of the occurrence is about the same. Regarding the treatment of these cases I usually give potassium iodid in considerable doses and gelatine in injections as advocated by Lancereaux in Paris, who had the kindness to show me about 10 to 15 cases treated by this method. I was very much impressed by the clotting which occurred in aneurysm which had perforated the chest wall. The danger of gelatine treatment is that tetanus occurs quite frequently if the gelatine is not properly sterilized. I believe that Merk puts a gelatine on the market which is absolutely sterile and can be injected without trouble. I saw 2 or 3 cases of disappearance of pulsation on the chest wall and an aneurysm which had been rapidly increased before, became stationary while the pain disappeared entirely. For the pain in aneurysm I often advocate veni section which often lessens the pain to quite a considerable degree. It often helps one to hold back with morphine.

PUBLICATION.

The Principles and Practice of Medicine.—By WILLIAM OSLER, M. D. Designed for the use of practitioners and students of medicine. D. Appleton & Co., New York.

It is a pleasure to read for review a book which one can cordially recommend. Such a work is the new edition of Osler's Practice of Medicine. It is written in short terse sentences and contains in a comparatively small bulk a wealth of historical, pathological, and clinical detail. Further, when descriptions of rare conditions are necessarily brief, the most valuable reference is repeatedly given. It has been brought well up to date and contains an account of Para-typhoid fever and the newer tropical diseases. Splenic enlargement is dealt with from the most recent standpoint. Chronic polycythemia with cyanosis and enlarged spleen is separately described, and looked upon as a clinical entity. Joint diseases are satisfactorily classified as far as our present knowledge will allow. Gaskell's Engleman's, Mackenzie's and Wencheloch's studies have been incorporated under Cardiac Arrhythemia, and this and allied subjects made very interesting. In the section on nervous diseases Sherrington's and Grienbaum's work on the higher apes is figured in the representation of the cortical localization, and the schematic diagrams of the segmental skin fields impress one with their accuracy. The sections devoted to treatment are extremely brief and perhaps reflect the therapeutic pessimism of the distinguished author.

COMMUNICATIONS.

Extravagant Claims for Hyoscine in the Treatment of Drug Addictions.

To the Editor of the STATE JOURNAL: Quite a number of articles have appeared in medical literature during the last few years advocating the use of hyoscine in the treatment of the morphine and other drug addictions. Some of these have advised its use in such large and frequently repeated doses as to make one familiar with the effects of this drug shudder to think of the distressing condition the patient must be brought into by such excessive use of so powerful an agent.

Some of these writers have made the most extravagant claims for this remedy, some claiming it to be an antidote for morphine, others that its use in combination with morphine prevents the formation of an addiction, others that it is a specific cure for the morphine addiction, and that by its use the worst cases may be cured within a few days' time.

An article appeared in the July number of your JOURNAL by Dr. Bering, of Tulare, that may be cited as an example. He gives the clinical notes of four cases, the third and fourth of which are as follows:

Case 3. Morphine habitue, using 20 gr. morphine and 20 gr. cocain daily for a period of years, was given 65 one-hundredth grain doses of hyoscine during a period of two and a half days. He was discharged cured, having no desire for either drug. Pulse remained good during treatment.

Case 4. Patient using a large quantity of morphine and cocain daily, was treated for three days and discharged cured.

When one reads such statements as these in first-class medical journals it makes him wonder whether the days of the miraculous cure of disease have really returned. In the writer's experience the cure of the morphine addiction in a few days' time is like "Learning German in ten lessons." Patients who are given such a course of treatment and discharged *cured* at the end of a few days' time find that they have about as much to contend with after their *cure* as before it, just as the would-be German scholar finds that after his ten lessons he has very much more to learn than he thought he had at the beginning. It is evident that the word "cure," as used by some of these gentlemen, does not mean what it is ordinarily understood to mean. There is much more involved in the cure of a case of morphinism than can be done in a few days' time with any course of treatment, however perfect it may be. In addition to the drug intoxication from which the patient is suffering, the system is surcharged with poisons, both of excrementitious and autotoxic origin. The functional activity of all the excretory, secretory and digestive organs are impaired. The blood changes are marked, the red corpuscles greatly diminished, the white correspondingly increased, patient profoundly anemic, muscles flabby and relaxed, nervous system deranged to a marked degree, mental activity impaired. In fact, the patient is greatly below par in every respect.

We are free to confess that we are old-fashioned enough to believe that in the treatment of this or any other disease it is still necessary to conform to well-established physiological laws, rather than depend upon some miraculous agency to transform our patient from disease to health; therefore, we do not believe that these markedly deranged conditions can be corrected in a few days' time to such a degree as to justify the patient's being discharged as cured.

The administration of sixty-five 1-100 gr. doses of hyoscine in two and one-half days—a little over 1-100 gr. every hour—is excessive medication. and would be dangerous in many cases. I do not wish to be understood as condemning the use of hyoscine in the treatment of these addictions, because it is a remedy of great value, but it has its limitations as well as its uses. It does not cure the morphine addiction, as is

claimed by some who advocate its use with the rashness of a new convert, but it does fill one of the most important indications in the treatment of such cases. When properly used, after the patient is prepared for it, it serves to carry him in comfort over a period during which he would otherwise suffer intensely. If the withdrawal of the opiate was all that is involved in the cure of these addictions, hyoscine might be regarded as a cure for them, but that is not all. The physician deceives himself if he thinks that merely because the opiate has been withdrawn by the aid of hyoscine and the patient has reached a stage where the administration of either drug is not longer imperative, that he is cured. He is still very weak, anemic and nervous, his system is still in a toxic condition, less so than at the beginning, but still sufficiently so to cause an elevation of temperature of from one to three degrees, attended by aching of the limbs and back, exaggerated nervous reflexes and various other unpleasant symptoms, and, unless he has had something more than hyoscine given him to cure his addiction, he will soon have a diarrhea that will tax his endurance to the limit if it does not force a return to the use of the opiate.

There are several institutions in this country that depend upon hyoscine to cure their patients. These make the most wonderful claims for hyoscine, or rather for their particular combination, which, in fact, is nothing more nor less than hyoscine. They regard the withdrawal of the opiate as all that is involved in the treatment of these addictions, and insist upon discharging their patients within eight days from the beginning of treatment. In almost every instance such a patient finds that he has so many complications to contend with and is so poorly prepared to make such a fight that he soon gives up in despair and returns to the use of the opiate. Many cases have come under my care with such a history.

In the very best hands all that can be done for a patient of this class during the first week of treatment is to clear the system of retained excrement and thus remove the source of autointoxication, partially cleanse the system of ptomains and other poisons of auto-origin, withdraw the opiate and bring the patient to a condition where its use is no longer a necessity, but when this is done the patient is not cured; he has only reached a point where convalescence may set in. Such a patient needs medical supervision, discipline and moral support as badly during the period of convalescence as he needed active treatment before that stage was reached. Fortunately, such patients convalesce rapidly, they eat heartily, digest and assimilate a large quantity of food and take on flesh rapidly. If a wise supervision is exercised over them and they are required to carry out a physiological course of physical training, so as to develop all the newly acquired flesh into stout muscular fibre and tone up what they already have, in many instances convalescence may be advanced to a wonderful degree within the first thirty days. In thirty days more such a patient should be as stout as he ever was. When such a physical condition has been reached, with a corresponding improvement in the mental condition and the patient has been off of his drug and all substitutes for it for a period of thirty to sixty days, he may be discharged as cured; but I do not think the word "cure" should be used to mean less than that.

Some physicians who treat these cases by the reduction method insist upon a period of treatment and personal supervision of from six to twelve months. I think such a protracted course of treatment is as much an extreme in the other direction as the few days' term is with those we have above considered. In the cure of these addictions it is not only necessary to take the patient off of the drug and put him in good physical condition, but, if he is to be permanently cured he must be made independent of all drugs. During such a prolonged course of treatment, supervision and at least partial restraint, the patient does not develop independence or self reliance, but continues to depend upon his physician and upon the remedies he is taking. His volition is restricted and his own will is not the controlling force from which his conduct springs. In fact, a protracted course of treatment, supervision and restraint, in patients of this class, who are already abject slaves to a drug, tends to perpetuate a condition of invalidism and dependence from which the patient seems powerless to extricate himself after being discharged.

In my experience, patients of this class who have been taken off of their drug by a proper method and have been developed into good physical condition as rapidly as it may be done, are in safer condition to be thrown on their own resources by the end of six to eight weeks after the drug is withdrawn than they are if kept under treatment and restraint longer. At this period time has not materially obliterated the memory of their former abject slavery; they are supremely happy in the realization of their freedom, in contemplating the desirable things that life may have in store for them since they have another opportunity to enter upon their acquisition. They are full of hope, buoyancy and ambition. The world and all that is in it presents to them a new and bright aspect. At this floodtide of hopefulness, buoyancy and new life they are in better condition to be thrown on their own resources and to establish themselves in a safe relationship to all things that might tempt them, than they are if kept under restrictions until this tide begins to ebb.

To those who are seeking the truth in this matter I would say, do not accept the miraculous claims of the three-day cure men on the one hand, neither swing to the standard of those who insist upon a period of from six to twelve months' treatment and restraint. There is a middle ground, a reasonable position, where the truth may be found. Remember that miracles are not to be expected and that restraint does not develop independence and self reliance, upon which the patient must finally depend, and without which man is mere driftwood.

GEO. E. PETTEY, M. D.

Memphis, Tenn.

Our Position.

We call attention to a letter* from Dr. Simmons, general secretary of the American Medical Association, printed in our correspondence column.

No one who has read the editorial columns of this paper can doubt our attitude on these important questions.

Medical journalism in this country has been and still is tainted with the all-pervading spirit of commercialism, which the enormous increase in wealth and the great strides in the development of our country have engendered. It is a phase of our National development. So far as medical journalism is concerned, its present evil course in the matter of advertisements is largely due to the fact that the pace has been set by privately owned and privately conducted journals, which have been founded and are controlled by the great publishing houses, pri-

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**To the Editor, Journal of Medical Society of New Jersey:*

MY DEAR DOCTOR:—I find that I failed to officially call your attention to a resolution which was unanimously adopted at the last meeting of the House of Delegates of the American Medical Association. The resolution referred to, was introduced by Dr. E. Eliot Harris, of New York City, and is as follows:

"*Resolved*, That the committees on publication of the journals of medicine, published by the State medical associations affiliated with this body, be asked to assist the Board of Trustees in their efforts to suppress the advertisement of medical nostrums and to co-operate in the work of securing pure food and pure drug laws in the United States."

Respectfully yours,

GEORGE H. SIMMONS,
General Secretary.

marily to make money for their owners and to advertise their publications. They have made the real interests of the profession and the true welfare of the sick and feeble secondary to private ends.

It is perhaps not surprising that the State journals have endeavored to lighten the expenses of publication by accepting advertisements of proprietary medicines, the formulæ of which are not specified and the effects of which may be injurious or questionable, and have not felt strong enough to refuse this ready and easy means of adding to their incomes.

Now in great part through the fearless and unselfish course of the editor and publication committee of the CALIFORNIA STATE JOURNAL, a better day is dawning. The trustees and the editor of the great *Journal of the American Medical Association* have adopted, after mature deliberation, a perfectly fair method of dealing with this question.

This movement, as well as the efforts to secure legislation ensuring the purity of all foods and drugs, should receive the sincere and unremitting support of every member of the medical profession.

WILLIAM J. CHANDLER,
DAVID C. ENGLISH,
CHARLES J. KIPP,
Publication Committee.

RICHARD COLE NEWTON, Editor.

—*Journal of the Med. Soc. of New Jersey*, Nov., 1905.

The International Congress for Tuberculosis.

The Congress, from the standpoint of attendance, seems to have been, from the reports which reach the JOURNAL, a very decided success. The leading nations of the world were all represented by delegates and members, of course the preponderating influence was French, and there has been some complaint on the score that practically all of the papers read were in the French language, and that but little time or attention was given to those who did not present their opinions in this tongue.

It will be difficult to determine exactly the value of the various papers presented, until they have been published and can be carefully read and considered. Undoubtedly, one very valuable phase of the Congress was the bringing together into personal contact the foremost medical men in the various countries of the world, who are devoting their time and their attention to careful study of the various problems presented by tuberculosis.

The next Congress to be held in 1908, we are glad to learn, will meet in the United States.

It is a little difficult to determine exactly what attitude should be held toward the announcement by von Behring. In some quarters, notably in England, one hears little except rumors of unmitigated condemnation; first, because he did not fully describe his suggested remedy, and second, because it is intimated that he expects to make a feature of the commercial side of it. On the other hand, the criticisms from the French and German laboratories are quite the reverse, they regard von Behring as an exceedingly careful and honest worker, and in some quarters, they consider it rather a desirable thing that he advocates the propriety of making some money out of whatever he may be able to perfect. At the time of the Congress, he stated that he had made decided advances, but that he was not prepared to make a full and final announcement until others had gone over his work and had confirmed his findings. It is reported on good authority that von Behring was not at all responsible for the sensational announcements made in the Paris papers at the time of the Congress.

Please send notice of change of address promptly to the office, Y. M. C. A. Building, San Francisco.

REGISTER CHANGES.

Those members who desire to keep their Registers corrected up to date should check this list carefully. In the following will be found all the official changes (in California) received from the 15th to the 15th.

Abbott, Geo. K., from Glendale to Loma Linda Sanitorium, Loma Linda, Cal. **Akerly, James C. S.**, from 14 San Pablo ave. to 1155 Broadway, Oakland. Hrs. 1:30-3:30 and 7-8. **Armstrong, Maurice M.**, from 624 East 5th st. to 402-3 Severance Bldg., Los Angeles.

Berger, Bertha, from add. unk. to Station G, Baltimore, Md. Blumenberg, Samuel P., from 1426 Jones street to 1360 Green street, near Polk, San Francisco. Boyd, Truman O., from add. unk. to Twin Falls, Idaho. Boynton, Chas. E., from add. unk. to Redding, Shasta, Co. Hrs. 9-12, 2-4 and 7-8. Bonynge, Chas. W., from add. unk. to Potomac Blk., Los Angeles. Hrs. 10-12 and 7-8. Bullington, Perry F., from Oroville to Chico. **Bulson, Charles H.**, from Lincoln, Placer County, to 2710 J. st., Sacramento.

Condit, Joseph D., from 380 Elerada Drive to 208-9 St. Louis Blk., Pasadena. Coppedge, W. E., from add. unk. to Alturas, Modoc Co. Hrs. 9-12 and 2-4. **Crease**, Henry Geo., from Santa Ana to Hopkins Blk., Bakersfield.

Davis, Geo. W., from 406 Sutter st., San Francisco, to Lincoln, Placer Co. **Dowdall, Richard J.**, from Crescent City, Del Norte Co., to 1050 Noe st., San Francisco. Hrs. 1-2 and 6-7. **Duncan, A. M.**, from add. unk. to Grant Bldg., Los Angeles. Hrs. 11-4.

Ewing, D. A., from St. Luke's Hospital to Y. M. C. A. Bldg., San Francisco. Hrs. 10-2.

Hardman, C. W., from add. unk. to Laton, Fresno Co. Harris, B. Y., from Grant Bldg. to Rms. 3-4-5 and 6, 453 Kearny st., San Francisco. Hrs. 9-12 and 7-8. **Hassler, Wm. C.**, from 528 Sutter street to 293 Geary st., San Francisco. Hawkins, Orwin C., from Oroville to Biggs, Butte Co. **Hedgpeth, William Rufus** from Santa Cruz to Paso Robles. **Hicks, William T.**, from New Idria, San Benito Co., to 101½ Grant ave., San Francisco. Hrs. 9-12, 3-5 and 7-8. **Hull, Philo**, from Chico, Butte Co., to McArthur, Shasta Co.

Keegan, Lawrence T., from add. unk. to Black's Station, Yolo Co. **Kuhlman, Charles G.**, from 936 Van Ness ave. to 293 Geary st., San Francisco.

Leland, Thos. B. W., from 246 Sutter st. to 293 Geary st., San Francisco.

Magnus, Max E., Donohue Bldg., San Francisco, change from Coll. of Phys. & Surg., San Francisco, to Coll. of Phys. & Surg., Chicago, Ill.

MacMonagle, Beverley, from 590 Sutter st. to 293 Geary st., San Francisco. **Mayon, Chas. L.**, from Central Bank Bldg., Oakland, to 541 York st., Vallejo, Solano Co. **McDermot, W. P.**, from 210 San Jose ave. to 25th and Mission sts., San Francisco. **McNaughton, J. A.**, from Eureka, Humboldt Co., to Halfmoon Bay, San Mateo Co. **Miller, T. W.**, from 213 Conservative Life Bldg. to 426 H. W. Hellman Bldg., Los Angeles. Moore, Albert Wm., from add. unk. to 540 Wilcox Bldg., Los Angeles. Hrs. 11-12 and 2-4.

Parsegan, J. H., from Patterson Bldg., Fresno, to 508 Sutter st., San Francisco. Hrs. 10-12 and 2-5. **Pitcher, Josephine**, from Children's Hospital, San Francisco, to Halfmoon Bay, San Mateo Co. **Porter, Langley**, from 803 Sutter st. to 614 Taylor st., San Francisco. Hrs. 1-3 and 7:30. **Preston, R. W.**, from 2306 Pine st. to 430 Duboce ave., corner Fillmore, San Francisco. **Pryor, F. O.**, from Scotia, Humboldt Co., to Fulton, Sonoma Co.

Rendon, Victor A., from 126 W. 3d st. to 1021 W. 17th st., Los Angeles.

Siebe, Elizabeth, from 643 Sutter st., to 406 Central ave., San Francisco. Smith, Thos. O., from add. unk. to 502A Valencia st., San Francisco. Spiro, Harry, from add. unk. to 1325 Octavia st., San Francisco. Sumner, Percy, from 1264 Jackson st. to Pavia Bldg., 643 Sutter st., San Francisco. Hrs. 1-4.

Tallmon, Susan B., from add. unk. to 1900 Louisa st., Berkeley.

Woolsey, Chester Howard, from 246 Sutter st. to 293 Geary st., San Francisco.

Zelinsky, Frank, from 671 Carondelet st., Los Angeles, to Glendale, Los Angeles Co.

New Names.

Claypole, Edith J., 217 S. Broadway, Los Angeles, Univ. Southern Cal., '04. (C) '05. Hrs. 11-4.

Richardson, W. W., Bradbury Bldg., Los Angeles. Northwestern Univ. Med. School, Ill., '90. (C) '05. Hrs. 11-12:30 and 3-5.

Turnbull, Walter (H), 3168 Washington st., San Francisco. Hahn. Med. Coll. of Pacific, '04. (C) '04.

Van Valkenburgh, Charles C., 1125 T st., Fresno. Med. Coll. Univ. Mich., '78. (C) '81. (Retired.)

Wiley, E. H., Bradbury Bldg., Los Angeles. Northwestern Univ. Med. School, Ill., '01. (C) '05. Hrs. 9:30-11 and 1-3.

Williams, Chas. C., 401 S. Hope st., Los Angeles. Med. Dept. Harvard, Mass., '86. (C) '99.

New Members.

Fresno County—Fleming, Luther P., Gilreath, M. A., Hardman, C. W., Rosson, John B., Van Valkenburgh, Charles C., Weddle, Charles.

Los Angeles—Barton, Herbert P., Davis, Theo. G., Duncan, A. M., Gill, Henry Z., Richardson, W. W., Wiley, E. H., Williams, C. C. Pasadena Branch—Bleecker, J. T. Van Slyck, David B.

San Bernardino County—Power, W. B.

San Joaquin County—Olivieri, Leonida, Surryhne Benjamin F.

Shasta County—White, Sherman T.

Solano County—Arnold, C. E., Bransford, Samuel G., Hall, Lester Parker, Koltz, Bernard J., Makemson, W. S., McFarland, W. L., Miller, Harry O., Caldwell, E. J.

Yolo County—Curtis, Elliott D., Foster, E. C., Keegan, L. T., Prose, T. W.

Died.

Laidlaw, Horace, San Francisco.
Nichols, Geo. B., San Luis Obispo.
Nicholson, I. E., Oakland.
Watkins, Antionette.

NOSTRUMS ARE BEGINNING TO GET THEIR DUE.

The *Journal of the American Medical Association*, after thinking the matter over a long time, has finally decided to come out flatfooted on the side of respectability in the ranks of the profession. This official organ of the American Medical Association is setting a pace in the matter of exposing the humbuggery of those nostrum makers who pretend to be ethical and to appeal to physicians only, which medical journals conducted as commercial enterprises dare not attempt to follow. And the *Journal* is throwing consternation into the ranks of nostrum manufacturers and publishing houses by calling a spade a spade, in a manner which causes much merriment to the onlookers and gives pleasure to those who have labored a life time to present quackery in its true light. One of the most encouraging signs of the times is the fact that the National Association of Retail Druggists at its recent Boston meeting by a special resolution endorsed the action of the American Medical Association in its "work of eliminating from the practice of pharmacy and medicine, as far as practicable, unethical, secret, and in some cases fraudulent and dangerous compounds." With the United States government and the State excise authorities taxing as liquors those nostrums which but for the alcohol in them would be practically without value; with the *Ladies' Home Journal*, *Collier's Weekly*, *Leslie's Monthly Magazine* and some of the other lay publications appealing directly to the intelligence of the public; with the CALIFORNIA STATE JOURNAL OF MEDICINE are the *Journal of the American Medical Association* showing the physicians a few things which it is worth their while to notice; and with *The Druggists' Circular*, encouraged by the enthusiasm of the new journalistic converts to redouble the efforts which it has been making for an enlightened practice of pharmacy for nearly half a century, we can repeat in conclusion what we said in the beginning, nostrums are beginning to get their due.—*The Druggists' Circular and Chemical Gazette*, Nov., 1905.

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Dr. Heman Spalding - - - Chief Health Inspector, Chicago, Ill.

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State Journal of Medicine

ISSUED MONTHLY; OWNED AND PUBLISHED BY THE

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VOL. III, No. 12 DECEMBER, 1905 $3.00 A YEAR

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" reduced after inversion, per litre	68.80
Sulphate of potassium, in grams, per litre	0.91
Tartrate, in grams, per litre	1.85
Ash	2.24
Acid, calculated as sulphuric	3.13
Acid sulphurous	none
Acid salicylic	none
Saccharin	none
Coloring matter	nothing abnormal
Deviation of polarimeter, before inversion	+2°44′
" " after inversion	−2°16′
Coca bases, combined, in grams, per litre	0.220

(Signed) GIRARD, Chemist,
Director Municipal Laboratory.
Paris, France, March 24, 1900.

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Ash	2.24
Acid, calculated as sulphuric	3.13
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Saccharin	none
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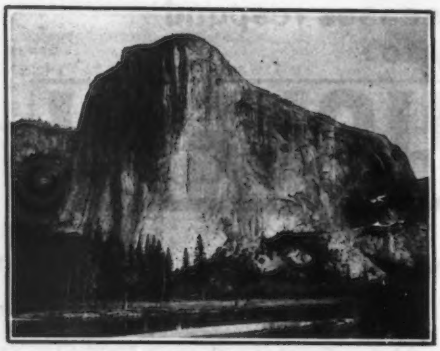

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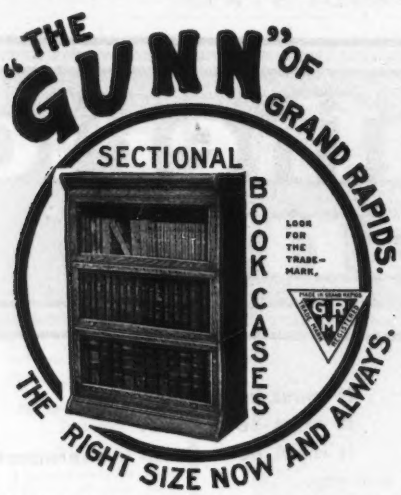

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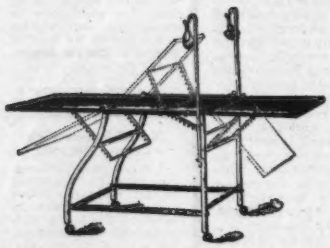

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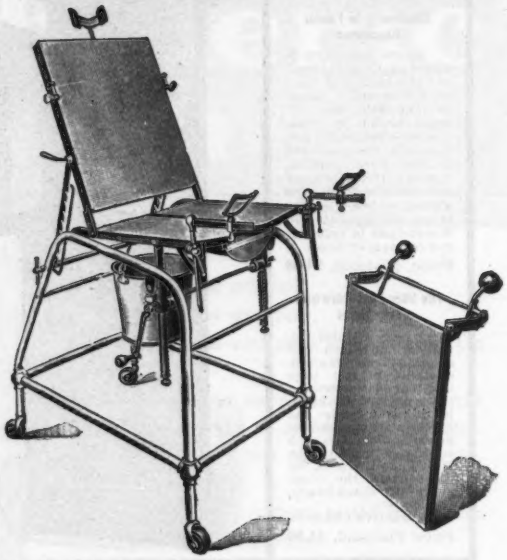

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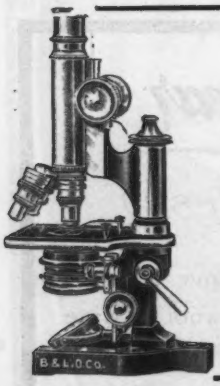

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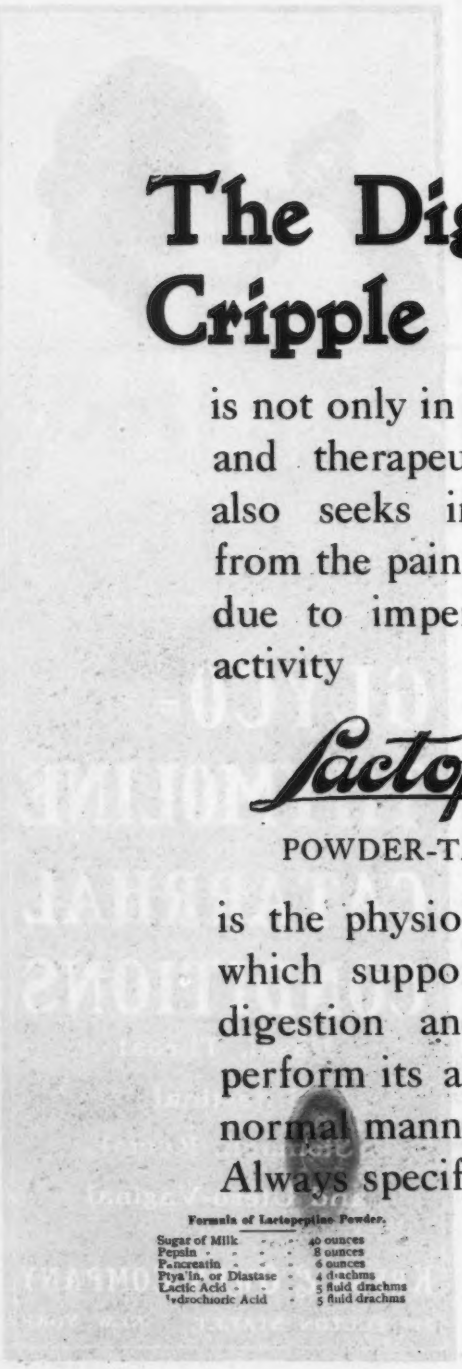

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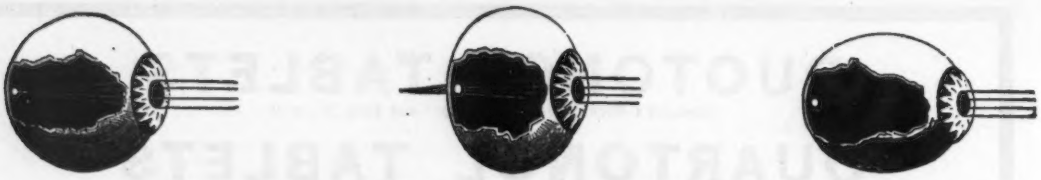

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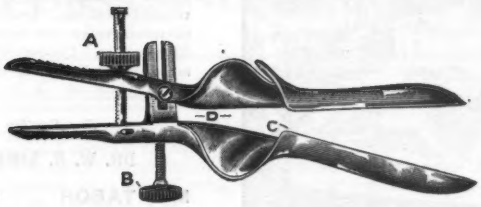

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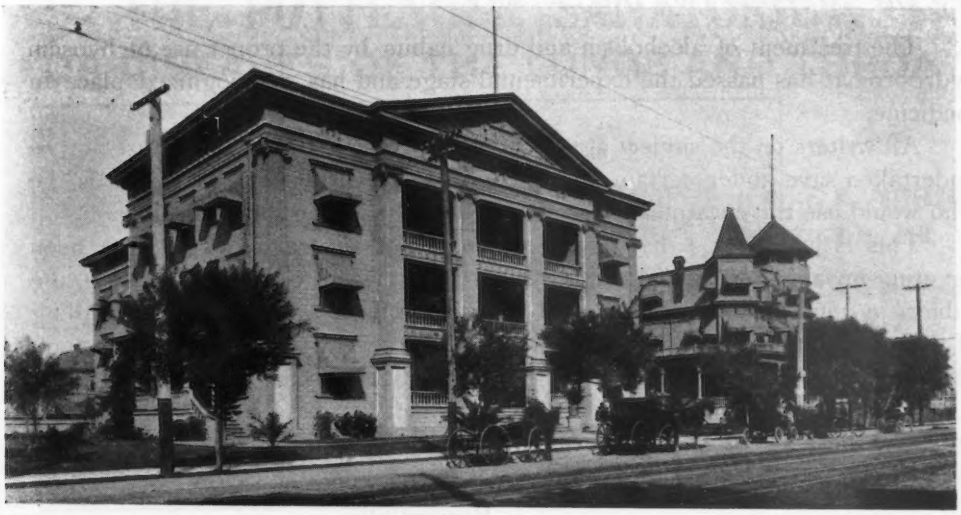

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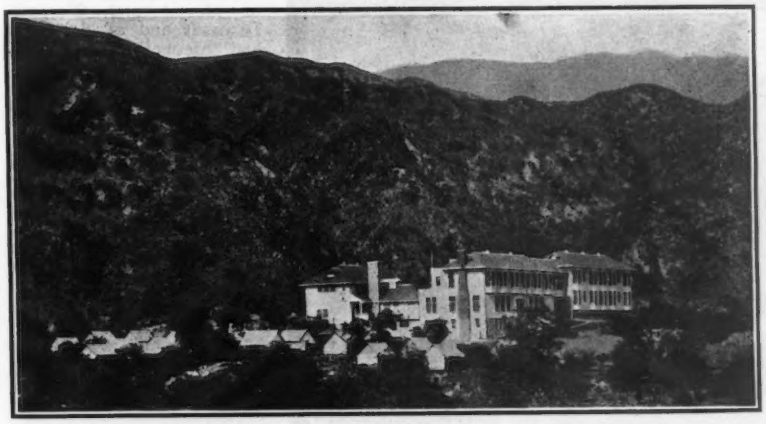

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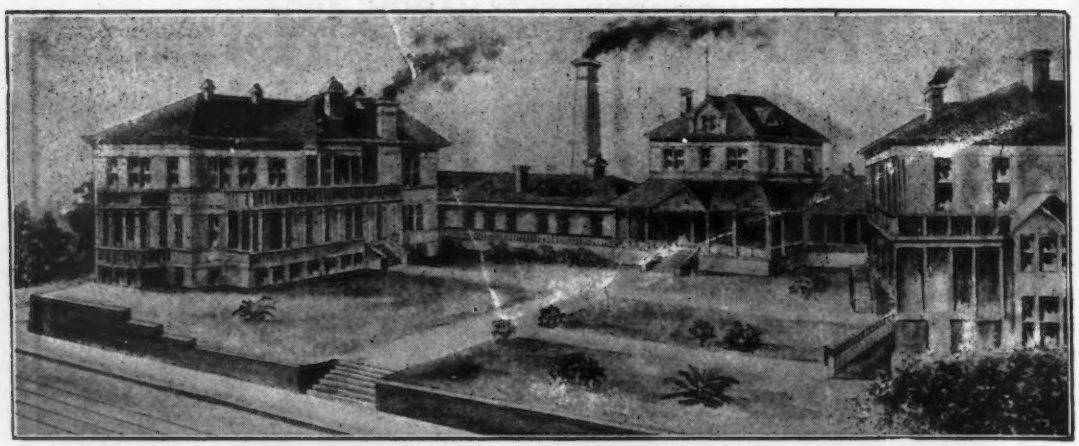

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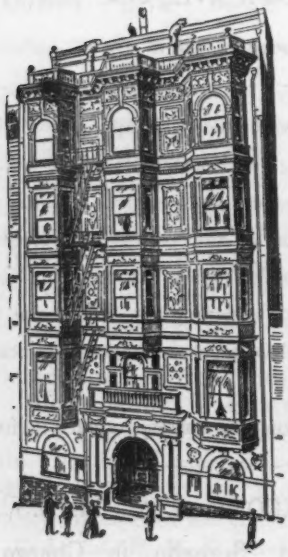

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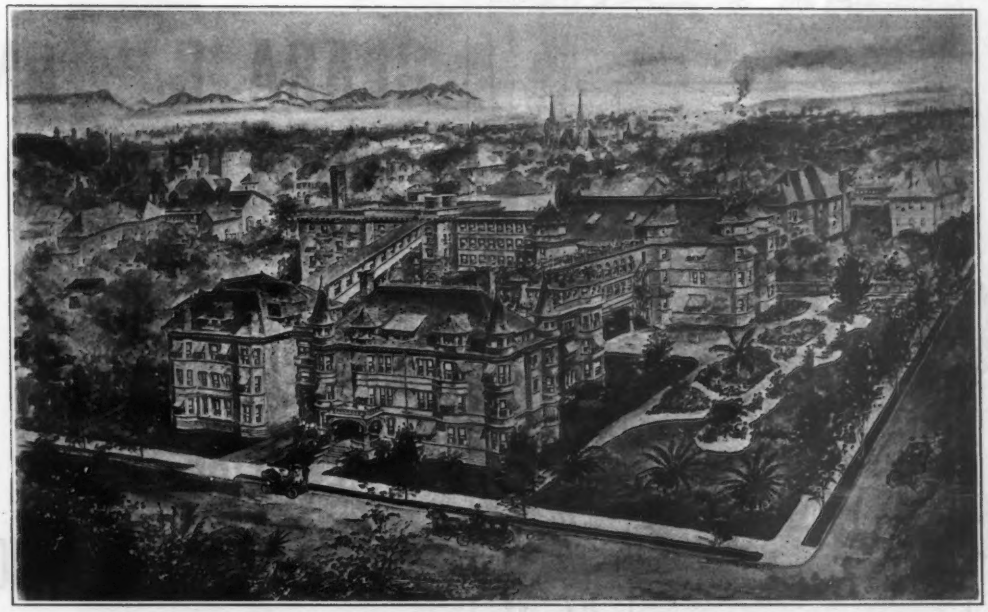

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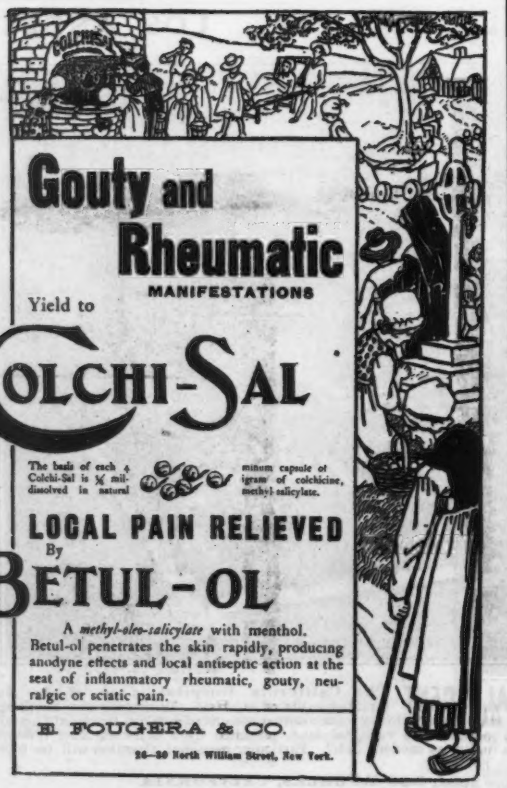

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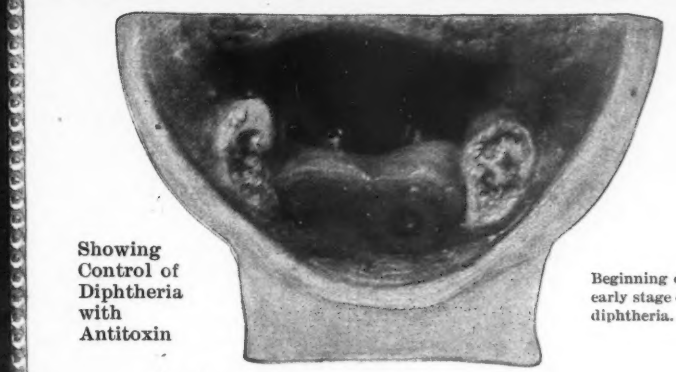
Mulford's Antitoxin

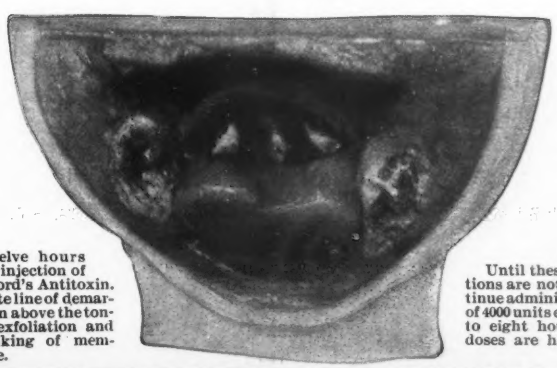
"SAVES MOST LIVES"



Showing Control of Diphtheria with Antitoxin

Beginning or early stage of diphtheria.

Second day of disease.
Note development of membrane.



Twelve hours after injection of Mulford's Antitoxin.
Note line of demarcation above the tonsils, exfoliation and shrinking of membrane.

Until these conditions are noted, continue administration of 4000 units every six to eight hours—full doses are harmless.

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"We believe it is economy to be liberal in the use of Antitoxin, as the disease is thereby shortened—the saving of life, is, however, the best reason."

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Soft flexible case, black seal-grain leather; contains twenty-four 2-dram screw-cap vials (cork vials if preferred); pocket for sundries; flat catch; fitted with our patent spring clasps for holding bottles.

Pocket Cases No. 2 and No. 15 are filled with the following selection:

Aconite Tinct., 1 min.; Analgine; Antiseptic, No. 6; Bismuth Beta-Naphtol Comp.; Bismuth Subnit. and Ipecac Comp.; Bronchitis, No. 3; Brown Mixture Comp.; Calomel, Ipecac and Soda, No. 1; Calomel, Sacch., 1-10 gr. (for children); Cathartic, Active; Chlorodyne; Coryza, Improved; Dover's Powder, 2 1-2 grs.; Dyspepsia Fermentative; Ergotin, 1 gr.; Fever (Davis); Kermes Mineral Comp.; Morphine Sulph., 1-6 gr.; Nitroglycerin Comp. (Heart Tonic and Stimulant); Pepsin, Capsicum Comp. (Digestive); Phy-Sagra (Anti-Constipation); Quinine Sulph., 2 grs. (chocolate-coated); Tonsillitis; Viburnum Comp. (Uterine Tonic).

Size, 8 x 3 1-2 x 1 5-8 inches

POCKET CASE, No. 15

THE MOST DURABLE POCKET CASE EVER INTRODUCED

Contains twenty-four 2-dram screw-cap vials (cork vials if preferred); made of best black sole leather; hand-sewed; lined with plush and provided with our patent spring clasps for holding the vials. Very complete, handsome and serviceable.

The regular price of these cases filled is $3.00 each. We allow a rebate of $1.00 to physicians mentioning the name of the journal in which this insert appears, and for $2.00, cash with order, will ship, charges prepaid, to any point in the United States. Money refunded if not satisfactory in every way.

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HAND OR BUGGY CASE, No. 4

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Contains seven 1 1-2 ounce glass-stoppered bottles (with metal safety covers), twenty-one 6-dram and thirty-two 1-2 ounce screw-cap vials (cork vials if preferred); velvet-lined case for hypodermic syringe, needles and ligatures and pocket for sundries.

A great improvement is in the method of arranging the pads for holding the bottles like leaves in a book, permitting case to be more securely made, affording easier handling of contents, all labels being in front and reading in the one direction.

Hand or Buggy Case, No. 4, filled as per following list:

Aconite Tinct., 1 min.; Analgine; Antacid; Anti-Constipation; Antiseptic, No. 6; Bismuth Beta-Naphtol Comp. (Typhoid Fever); Bismuth Subnitrate and Ipecac Comp.; Blaud's Tonic Laxative; Brown Mixture Comp.; Calomel, Ipecac and Soda, No. 1; Calomel, Sacch., 1-10 gr. (for children); Cathartic, Active; Chloral Hydrate Comp.; Chlorodyne; Creosote Comp. (Nausea); Cystitis, No. 1; Diarrhea, No. 1; Diarrhea, No. 2; Digestive; Digitalis, Tinct., 5 min.; Diuretic, Improved; Dover's Powder, 2 1-2 grs.; Dyspepsia Fermentative; Emmenagogue, Preferred; Endometritis; Expectorant, No. 3; Fever (Davis); Four Chlorides; Guaiac Comp. (Rheumatic); Hemostatic; Hypophos. Quinine Comp. with Creosote; Krameria Comp. (Astringent); Lime Water, No. 2; Morphine Sulph., 1-6 gr.; Neuralgia, Preferred; Nitroglycerin Comp. (Heart Tonic and Stimulant); Opium, Ipecac and Lead Acetate; Pepsin, Capsicum Comp.; Phy-Sagra; Potassium, Ammon. and Sodium Bromide; Potass. Arsenite, 1-50 gr.; Proferrin Comp.; Protan, 7 1-2 grs.; Protan Comp.; Quinine Sulph., 2 grs. (chocolate-coated); Rheumatic Improved; Sedative, Modified; Salol Comp. (Intestinal Diarrhea); Santonin and Calomel, No. 1; Sodium Bicarb. and Paregoric Comp.; Strophanthin and Nitroglycerin Comp.; Tonsillitis; Viburnum Comp. (Uterine Tonic).

Hypodermic Tablets

1 tube Cardiac, No. 2.....No. 119
1 tube {Morphine Sulph.....1-4 gr. / Atropine Sulph.....1-150 gr.}.....No. 74
1 tube Nitroglycerin.....1-100 gr.....No. 98
1 tube Strychnine Sulph.....1-20 gr.....No. 110
1 tube Adrin and Sparteine (Heart Tonic).

1 1-2 oz. G. S. bottles filled with the following:

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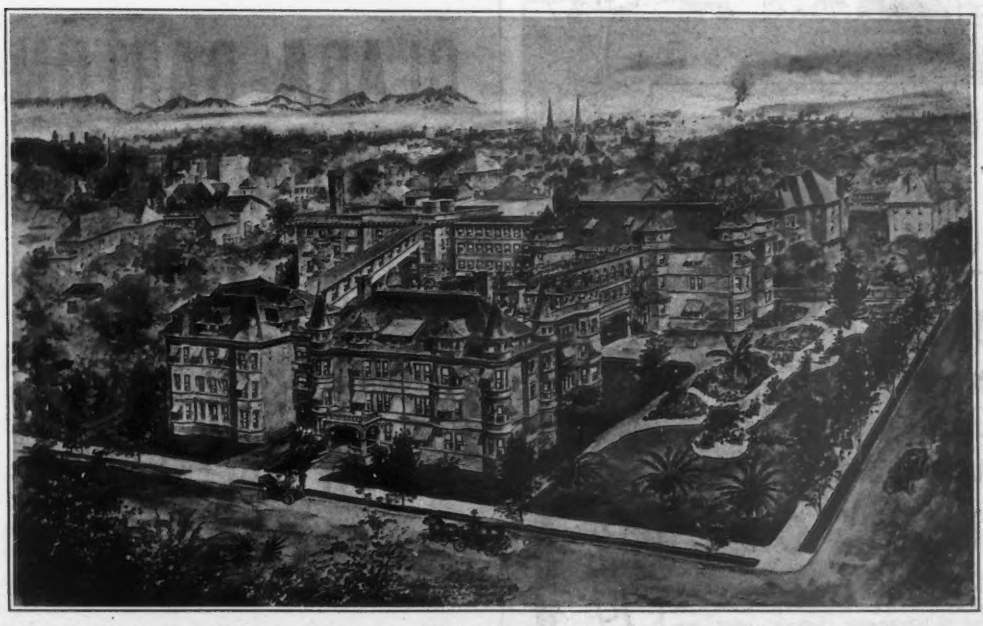

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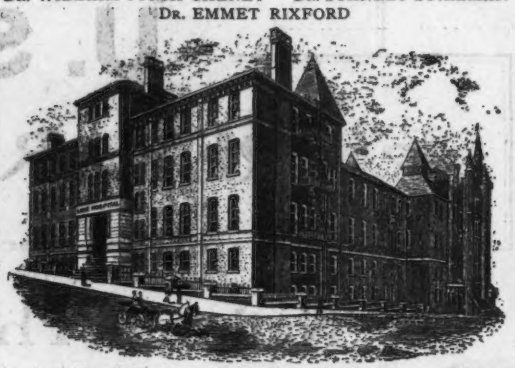

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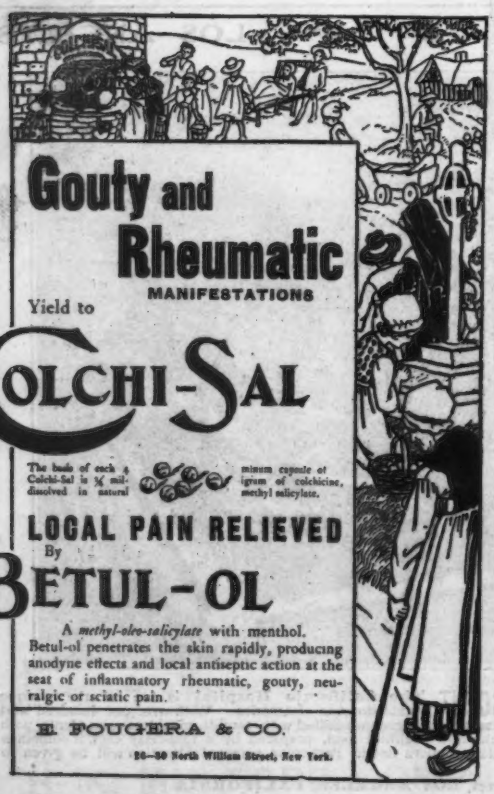

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